Maksuturva Payment Services Integration Guideline

Updated July 27th 2015

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1. Description of Maksuturva Services

Maksuturva is a Payment Service Provider (PSP) for webstores. Integrating Maksuturva services enables webstore to provide Internet Bank Payments, Card Payments, Invoice and Part Payment as Payment Methods available for their buyers to choose from. Maksuturva is responsible for charging the funds from the buyer, settling the funds to webstore and creating settlement reports for accounting purposes.

Direct Payment Services (e.g. eMaksut)

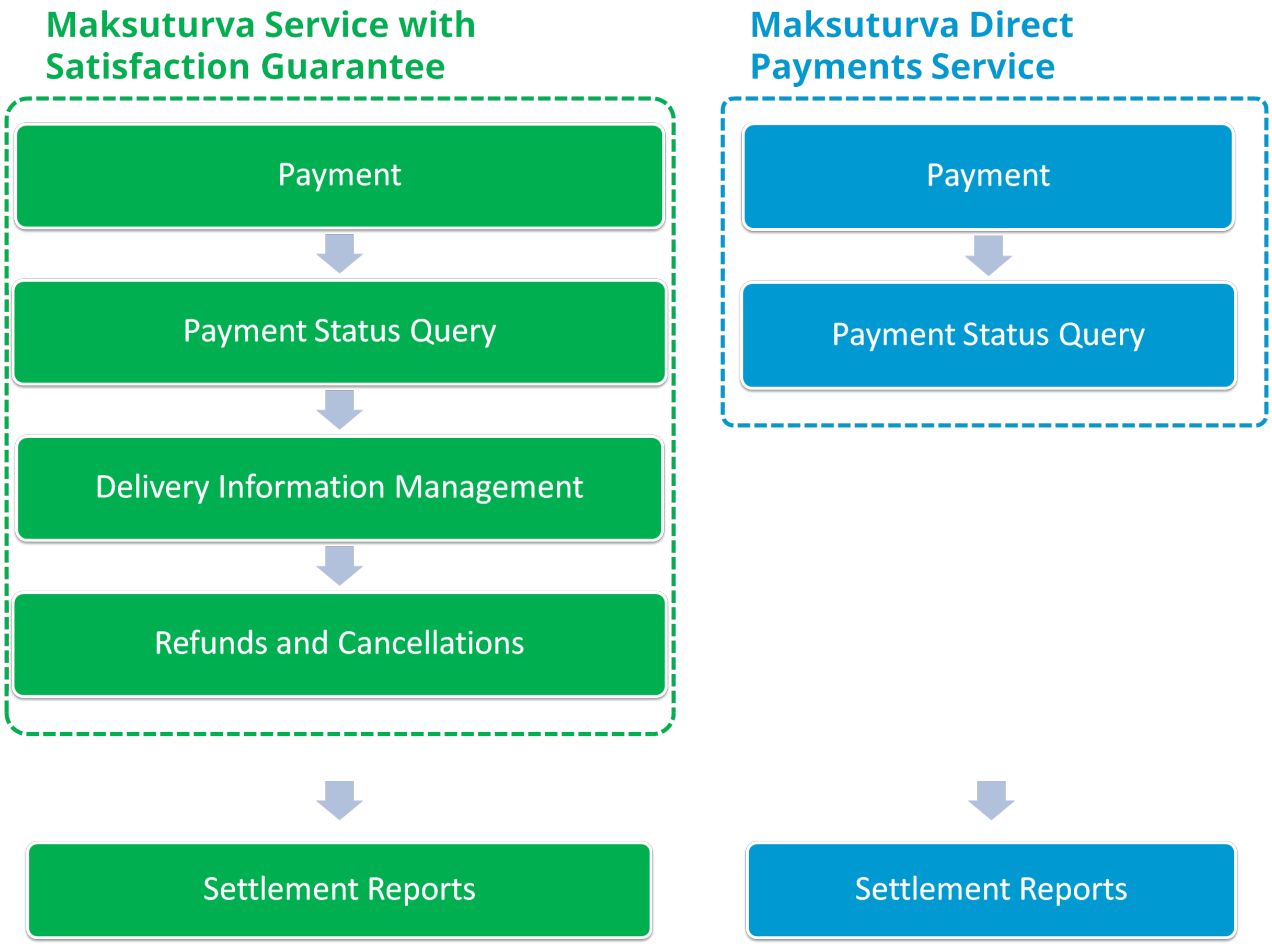
In its simplest form, Maksuturva payment service handles **direct payments** (e.g. **eMaksut**) where buyers' payments are settled to the webstore as soon as possible, usually on daily basis. Bank payments are normally settled to the webstore in one or two banking days. In case of direct payments, the following technical interfaces are available for the webstore: Retrieve Available Payment Methods, Retrieve Dynamic Image Material, Payment, Payment Status Query and Retrieve Settlement Reports.

Satisfaction Guarantee Services (e.g. Maksuturva Gold)

Payment services containing **Satisfaction Guarantee**, in other words Escrow Services (e.g. **Maksuturva Gold**), an inspection period (at least 14 days recommended) is specified. In case of these escrow payments, Maksuturva keeps the buyer's payment funds on Customer Assets bank account and offers powerful tools for making changes made to the order (e.g. product returns) and the resulting refunds to the buyer. Inspection period starts when buyer has received the order. When the inspection period has passed, the order is settled to the webstore and possible refunds are made to the buyer's bank account, card or invoice. In case of escrow payments, the following technical interfaces are available for the webstore: Retrieve Available Payment Methods, Retrieve Dynamic Image Material, Payment, Payment Status Query, Delivery Information Management, Payment refunds and cancellations and Retrieve Settlement Reports.

For buyers, Maksuturva provides a service called Web Buyer's Services, where the buyer has various tools for proposing changes to his or her order. For webstores, Maksuturva provides a service called KauppiasExtranet, where webstore has even more tools for making or approving the changes to the orders.

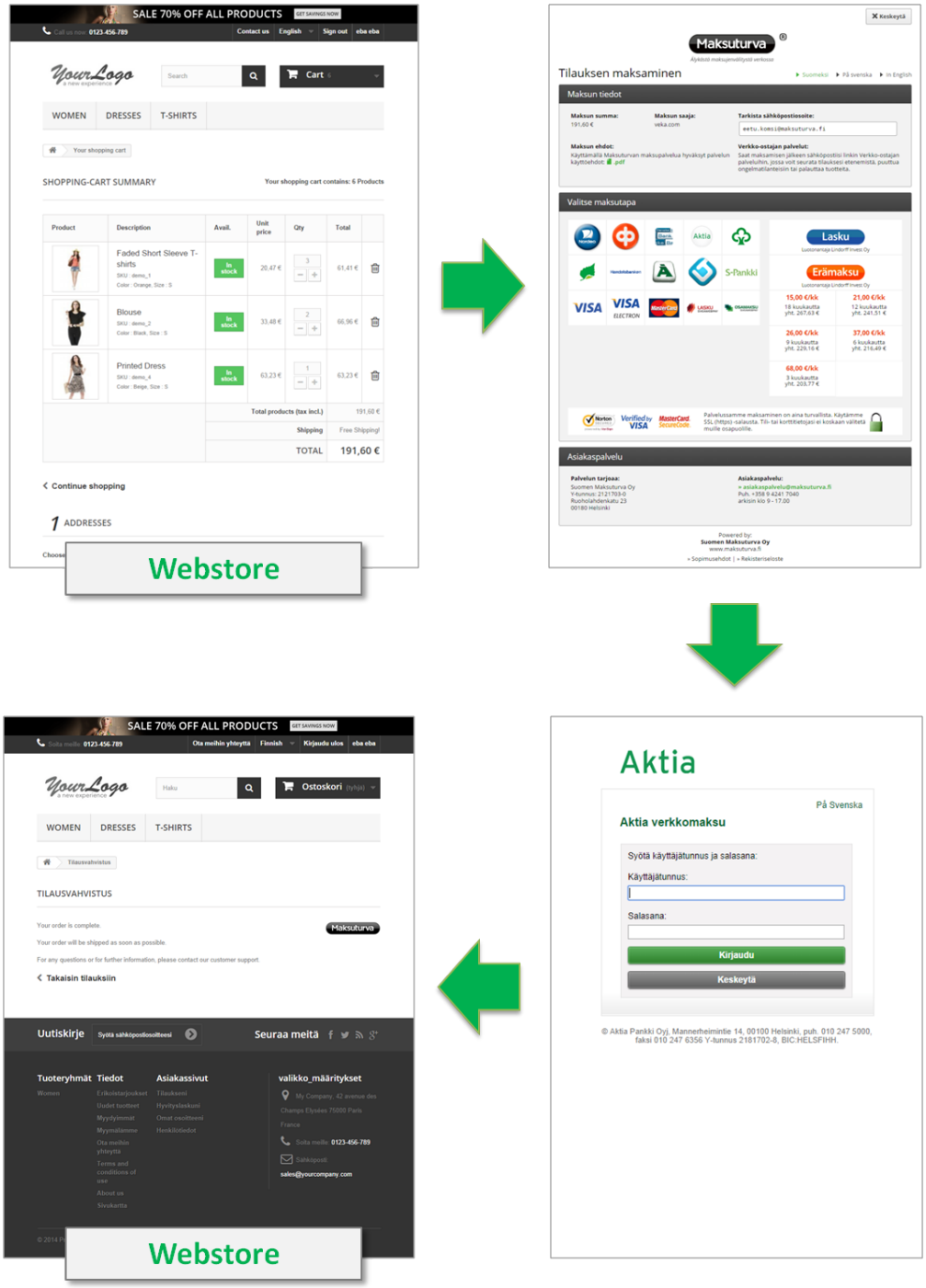
Service Interfaces at a glance


Maksuturva Service with Satisfaction Guarantee
Payment
Payment Status Query
Delivery Information Management
Refunds and Cancellations
Settlement Reports
Maksuturva Direct Payments Service
Payment
Payment Status Query
Settlement Reports

1.1 Payments

The buyer chooses Maksuturva when he/she wants to pay the order. Webstore then sends the order and payment details to Maksuturva using Payment API. Buyer is then displayed a page where he/she can choose one of the payment methods made available in the webstore. The page appearance and layout depends on the payment service the webstore has subscribed to. If webstore uses Direct Payment service (e.g. eMaksut), the payment request must contain parameter `pmt_escrow=N`. Correspondingly, if webstore uses Satisfaction Guarantee service (e.g. Maksuturva Gold), value `pmt_escrow=Y` must be used.

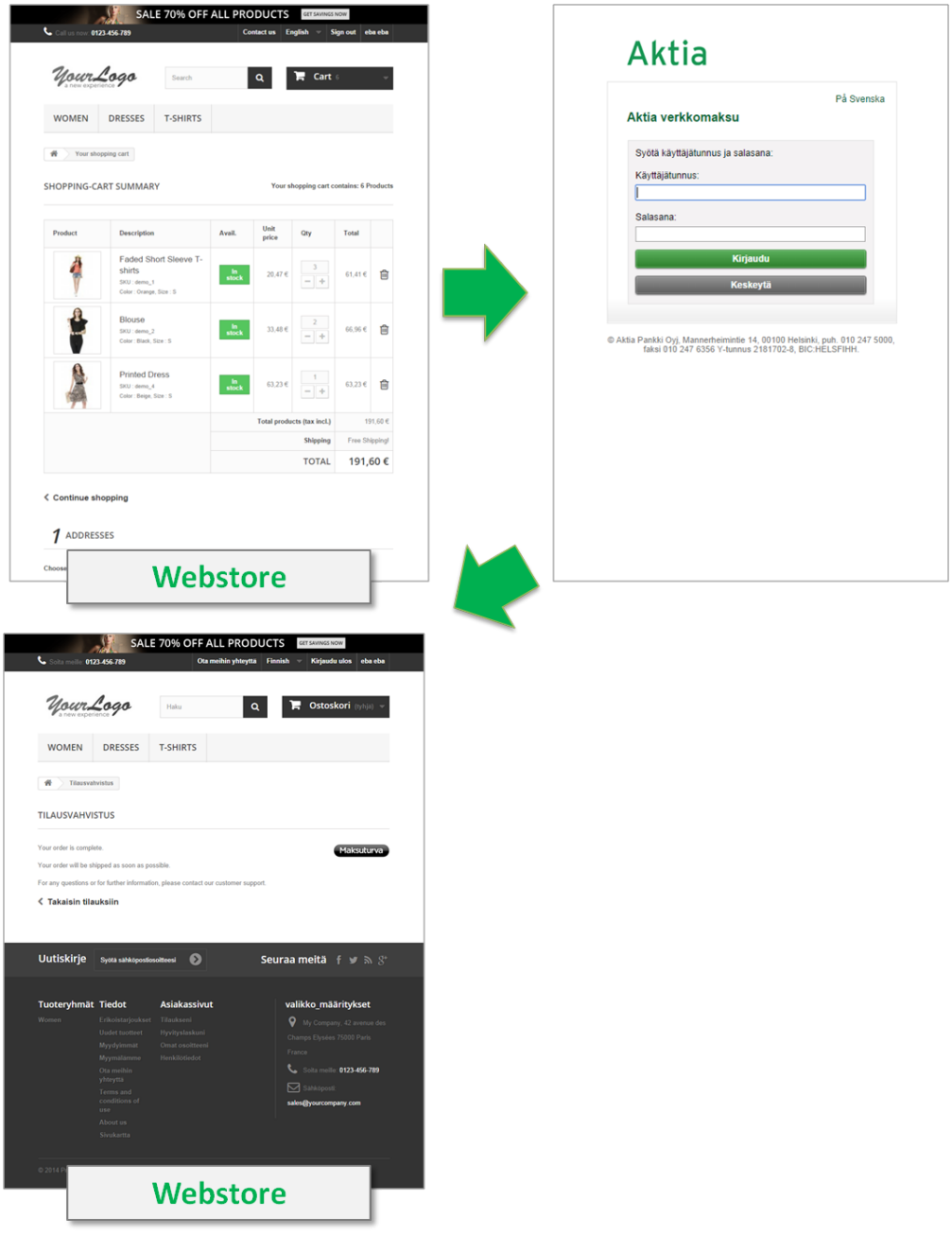
An example: Buyer pays the order using Aktia payment.



Choosing payment method already in the webstore

When Maksuturva and Webstore has mutually agreed on it, webstore can display the available payment methods for he buyer in their webstore. In this scenario, the Maksuturva's page for choosing the payment method is skipped altogether. This requires the webstore to retrieve the available payment methods **per order** using Retrieve Available Payment Methods API. Also, the Payment API must contain the code of the payment method (`pmt_paymentmethod`) buyer chose in the webstore. When buyer chooses payment method on a page displayed by Maksuturva, he/she agrees on the terms and conditions of Satisfaction Guarantee payments. On the other hand, if buyer chooses payment method in the webstore that is using Satisfaction Guarantee, webstore must display the aforementioned terms and conditions in the webstore and ensure the buyer agrees on them.

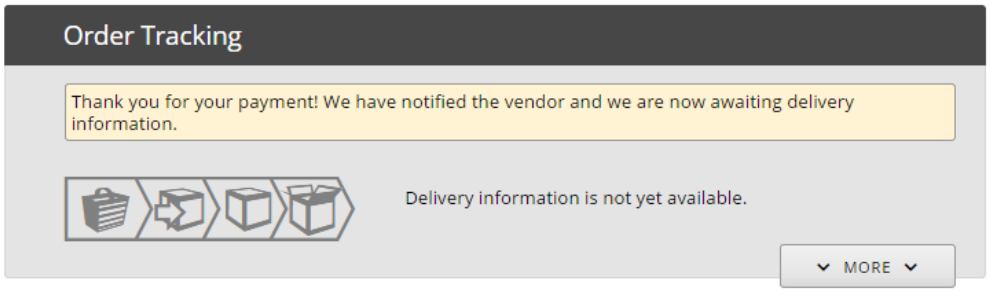
An example: Buyer pays the order using Aktia payment, choosed in the webstore (`pmt_paymentmethod=FI03`).



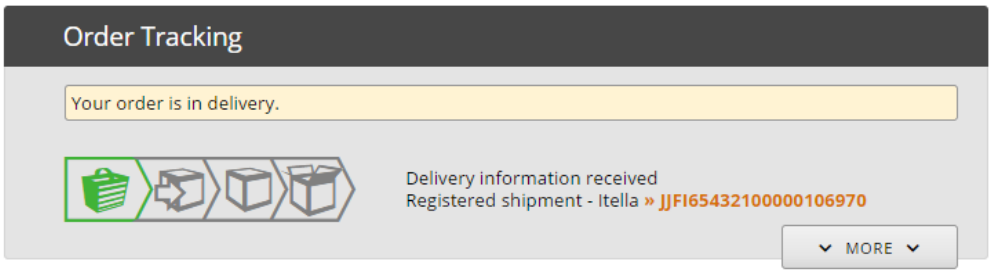
1.2 Delivery Information management and tracking

Delivery information management and tracking is only available for webstores using Satisfaction Guarantee service. Also, delivery tracking is only available when order is comprised of physical products and not for example downloadable products or services in general.

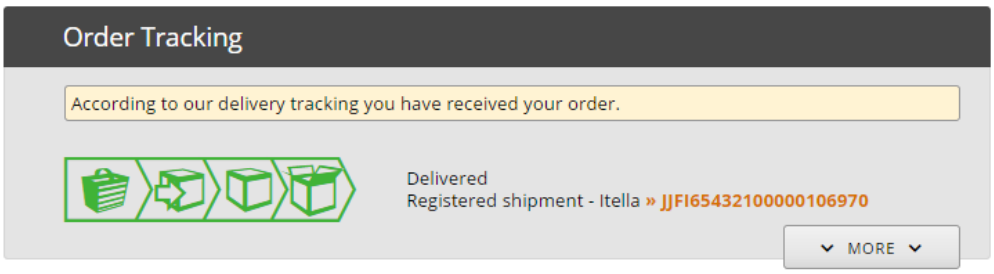
After the buyer's payment has been confirmed, webstore can add order delivery information either by using KauppiasExtranet service or Delivery Information Management API. The buyer can then tarck the delivery in the Web Buyer's Services. The order's inspection period starts as soon as the buyer has received the order according to Maksuturva's delivery tracking services.


Order Tracking
Thank you for your payment! We have notified the vendor and we are now awaiting delivery information.
Delivery information is not yet available.
MORE

The view in Web Buyer's Services when the buyer's payment has been confirmed, but the webstore has not yet added delivery information.



The view in Web Buyer's Services when the webstore has added delivery information.

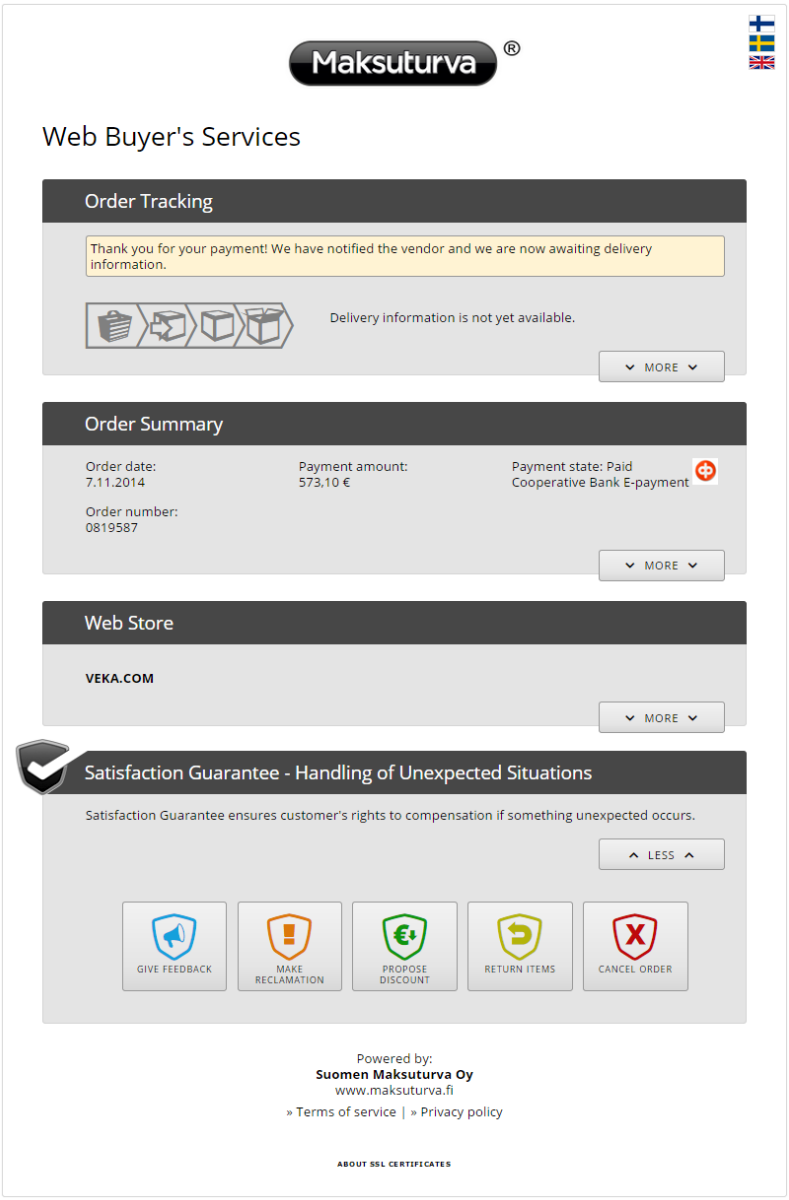

Order Tracking
According to our delivery tracking you have received your order.
Delivered
Registered shipment - Itella » JJFI65432100000106970
MORE

The view in Web Buyer's Services when the buyer has received the order (according to Maksuturva's delivery tracking services).

1.3 Satisfaction Guarantee (Web Buyer's Services)

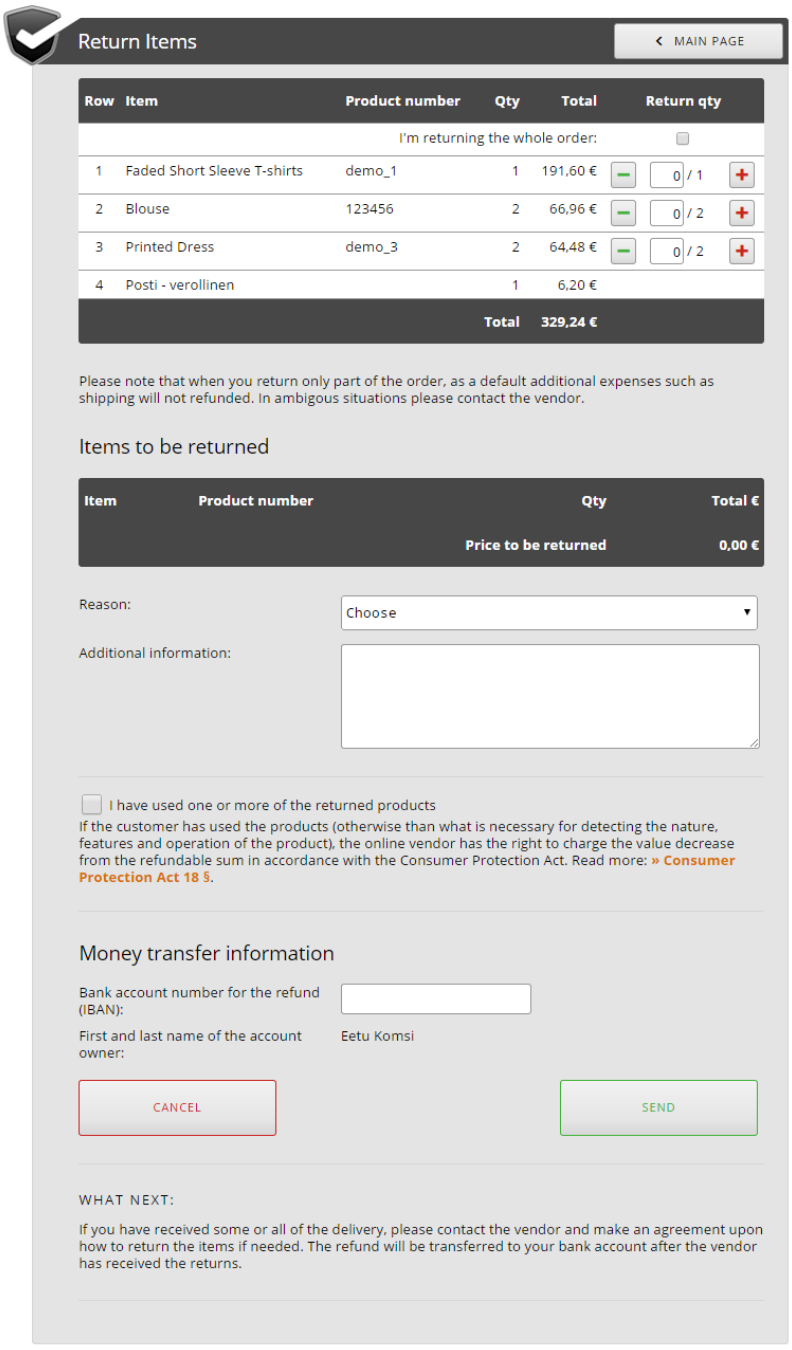
Webstore chooses inspection period (in days, e.g. 14) when Subscribing to Maksuturva payment services. Altough, the inspection period can easily be changed later on. The inspection period calculation starts as soon as all the order deliverables have been received by the buyer. During the inspection period, it is possibly to propose or make changes to the order. The buyer's change proposals always need to be confirmed by the webstore. The changes made by webstore are confirmed automatically, if possible. An exception to the aforementioned automatic confirmation are the Internet bank payments, where Maksuturva requests the buyer to enter his or her bank account number over a secured channel (Web Buyer's Services). The funds are then refunded to this bank account. That is, for buyers, Maksuturva provides a web application called Web Buyer's Services, where the buyer has various tools for proposing changes to his or her order. For webstores, Maksuturva provides a web application called KauppiasExtranet, where webstore has even more tools for making or approving the changes to the orders. Webstore can also make changes or approve the change proposals using Payment refunds and cancellations API.

The change proposals and reclamations made by the buyer always suspend all money transfers etc. until both parties have reached an agreement. That is, the change is confirmed by the seller or buyer withdraws his or her proposal or reclamation. The Withdrawn proposal or reclamation can be immediately replaced by another proposal. If the withdrawal is done after inspection period has passed, the order is settled to webstore on the next banking day. In this case, if buyer or webstore wants to create a new proposal or reclamation, it must be done on the same day.



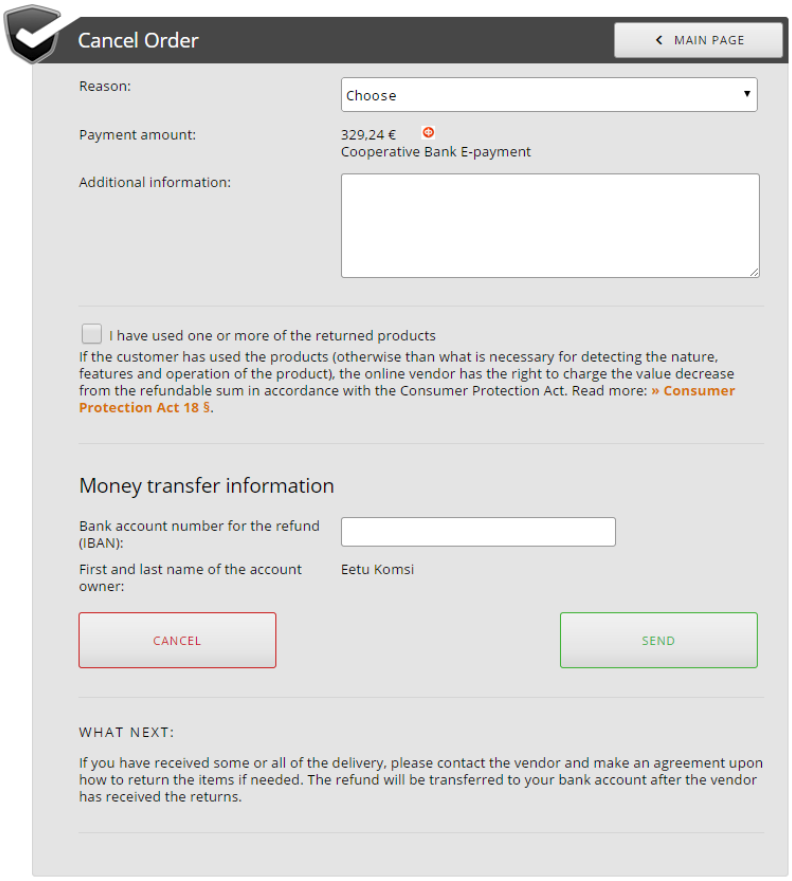
After the inspection period has passed Maksuturva settles the order to webstore and/or refunds possible changes to buyer.

Examples of Satisfaction Guarantee tools available in Web Buyer's Services

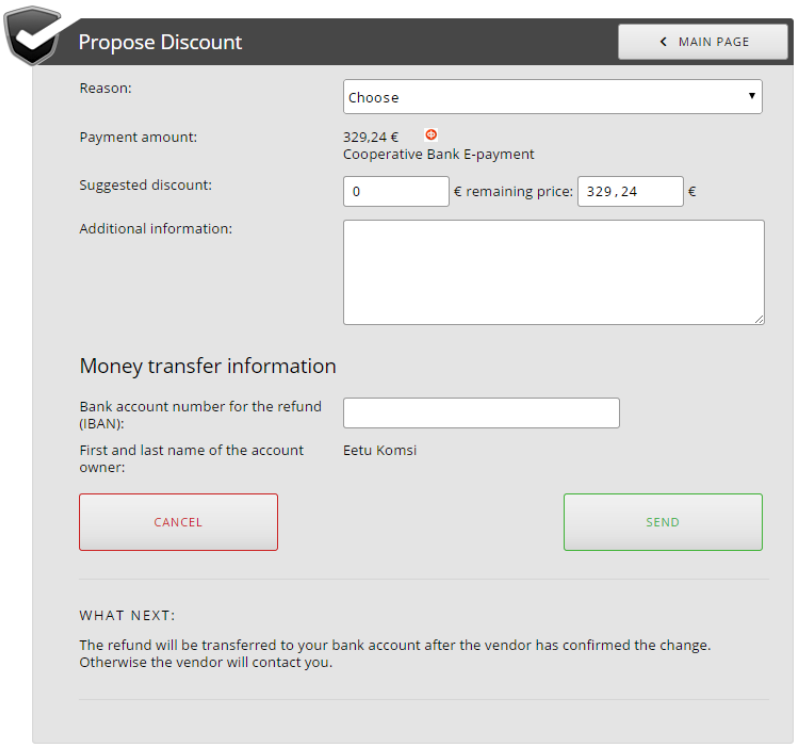

Return Items
MAIN PAGE
Row Item Product number Qty Total Return qty
I'm returning the whole order:
1 Faded Short Sleeve T-shirts demo_1 1 191,60 € 0 / 1
2 Blouse 123456 2 66,96 € 0 / 2
3 Printed Dress demo_3 2 64,48 € 0 / 2
4 Posti - verollinen 1 6,20 €
Total 329,24 €
Please note that when you return only part of the order, as a default additional expenses such as shipping will not refunded. In ambigous situations please contact the vendor.
Items to be returned
Item Product number Qty Total €
Price to be returned 0,00 €
Reason:
Choose
Additional information:
I have used one or more of the returned products
If the customer has used the products (otherwise than what is necessary for detecting the nature, features and operation of the product), the online vendor has the right to charge the value decrease from the refundable sum in accordance with the Consumer Protection Act. Read more: » Consumer Protection Act 18 §.
Money transfer information
Bank account number for the refund (IBAN):
First and last name of the account owner:
Eetu Komsi
CANCEL
SEND
WHAT NEXT:
If you have received some or all of the delivery, please contact the vendor and make an agreement upon how to return the items if needed. The refund will be transferred to your bank account after the vendor has received the returns.

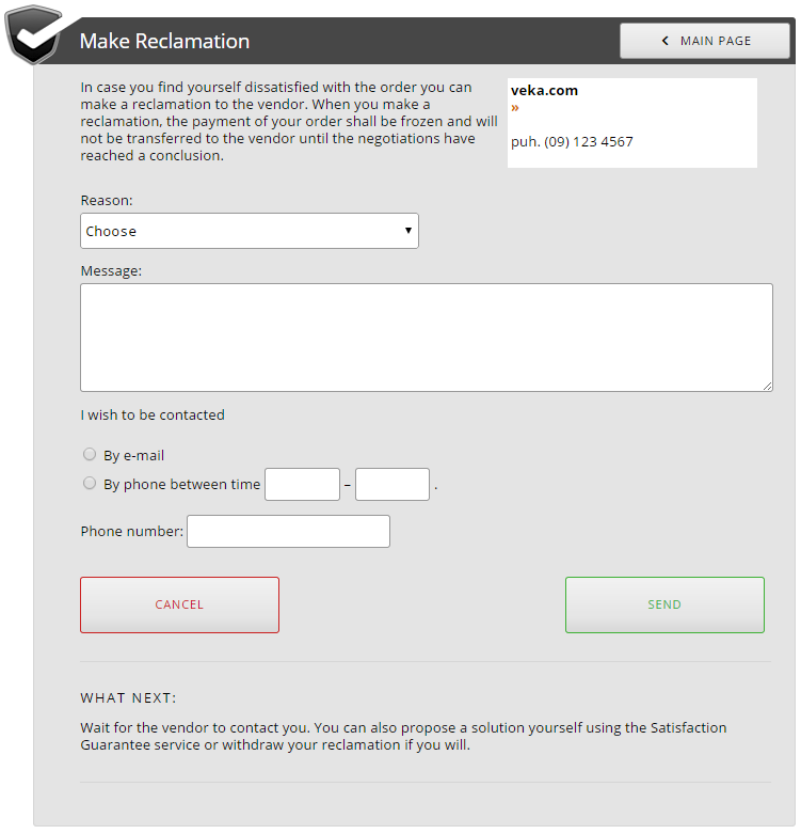
Product return form

Order cancellation


Cancel Order
MAIN PAGE
Reason:
Choose
Payment amount:
329,24 €
Cooperative Bank E-payment
Additional information:
I have used one or more of the returned products
If the customer has used the products (otherwise than what is necessary for detecting the nature, features and operation of the product), the online vendor has the right to charge the value decrease from the refundable sum in accordance with the Consumer Protection Act. Read more: » Consumer Protection Act 18 §.
Money transfer information
Bank account number for the refund (IBAN):
First and last name of the account owner:
Eetu Komsi
CANCEL
SEND
WHAT NEXT:
If you have received some or all of the delivery, please contact the vendor and make an agreement upon how to return the items if needed. The refund will be transferred to your bank account after the vendor has received the returns.

Price correction or discount

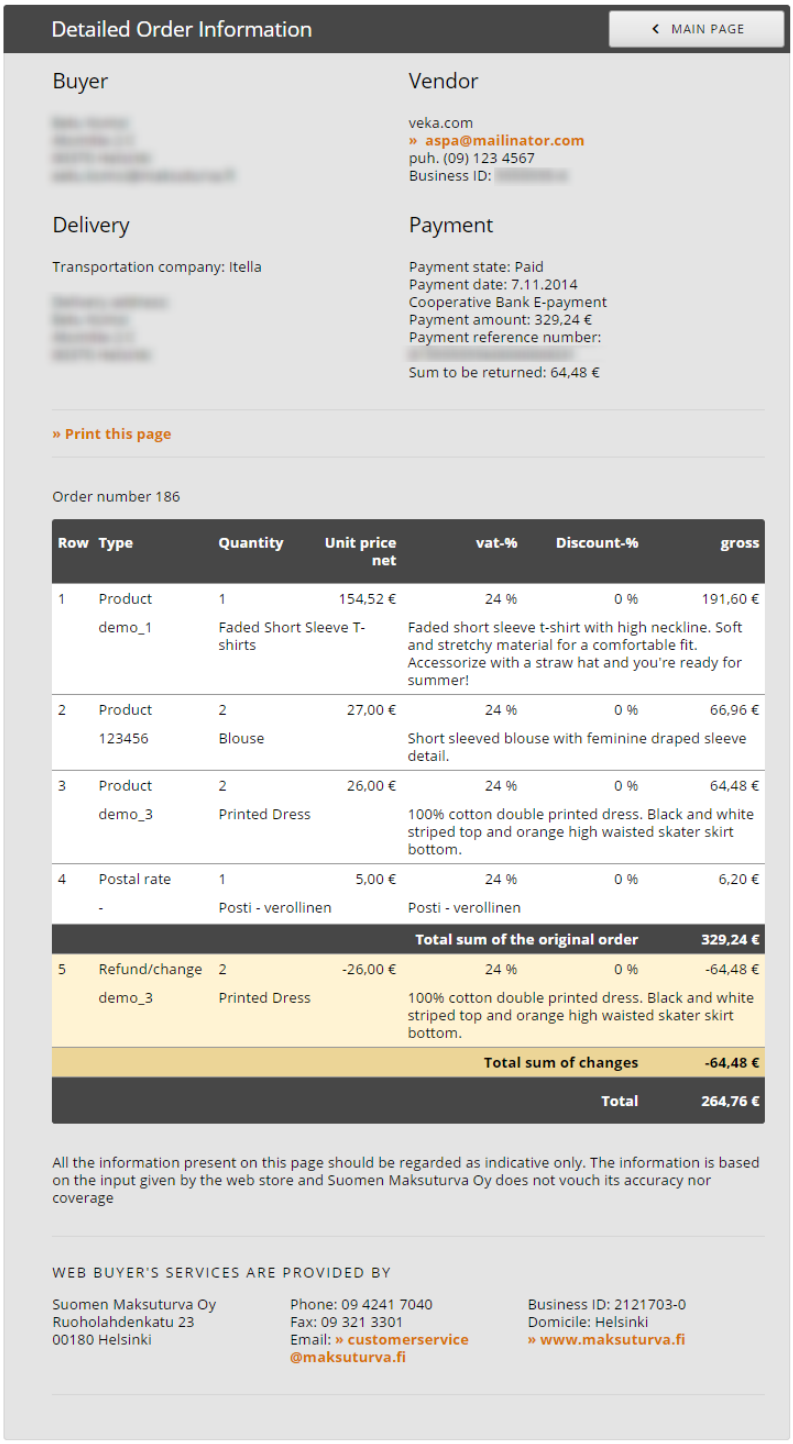



Make Reclamation
MAIN PAGE
In case you find yourself dissatisfied with the order you can make a reclamation to the vendor. When you make a reclamation, the payment of your order shall be frozen and will not be transferred to the vendor until the negotiations have reached a conclusion.
veka.com
»
puh. (09) 123 4567
Reason:
Choose
Message:
I wish to be contacted
By e-mail
By phone between time
Phone number:
CANCEL
SEND
WHAT NEXT:
Wait for the vendor to contact you. You can also propose a solution yourself using the Satisfaction Guarantee service or withdraw your reclamation if you will.

Buyer Reclamation

Webstore receives a notification of buyer reclamations. Buyer has the possibility to inform webstore about deficiencies or defects in the order without the need to propose a solution (for example propose any money amount buyer wants to be refunded). On the other hand, the buyer can be assured that his or her money is safe until he or she has reached an agreement with the webstore.

Reclamation also enables buyer and webstore to negotiate a solution that does not include any money refunds (for example a substitute product delivered to the buyer).



Detailed Order Information

MAIN PAGE

Buyer

[redacted]

Vendor

veka.com
» aspa@mailinator.com
puh. (09) 123 4567
Business ID: [redacted]

Delivery

Transportation company: Itella

[redacted]

Payment

Payment state: Paid
Payment date: 7.11.2014
Cooperative Bank E-payment
Payment amount: 329,24 €
Payment reference number:
[redacted]
Sum to be returned: 64,48 €

» Print this page

Order number 186

Row	Type	Quantity	Unit price net	vat-%	Discount-%	gross
1	Product	1	154,52 €	24 %	0 %	191,60 €
	demo_1	Faded Short Sleeve T-shirts		Faded short sleeve t-shirt with high neckline. Soft and stretchy material for a comfortable fit. Accessorize with a straw hat and you're ready for summer!		
2	Product	2	27,00 €	24 %	0 %	66,96 €
	123456	Blouse		Short sleeved blouse with feminine draped sleeve detail.		
3	Product	2	26,00 €	24 %	0 %	64,48 €
	demo_3	Printed Dress		100% cotton double printed dress. Black and white striped top and orange high waisted skater skirt bottom.		
4	Postal rate	1	5,00 €	24 %	0 %	6,20 €
	-	Posti - verollinen		Posti - verollinen		
					Total sum of the original order	**329,24 €**
5	Refund/change	2	-26,00 €	24 %	0 %	-64,48 €
	demo_3	Printed Dress		100% cotton double printed dress. Black and white striped top and orange high waisted skater skirt bottom.		
					Total sum of changes	**-64,48 €**
					Total	**264,76 €**

All the information present on this page should be regarded as indicative only. The information is based on the input given by the web store and Suomen Maksuturva Oy does not vouch its accuracy nor coverage

WEB BUYER'S SERVICES ARE PROVIDED BY

Suomen Maksuturva Oy
Ruoholahdenkatu 23
00180 Helsinki

Phone: 09 4241 7040
Fax: 09 321 3301
Email: » customerservice@maksuturva.fi

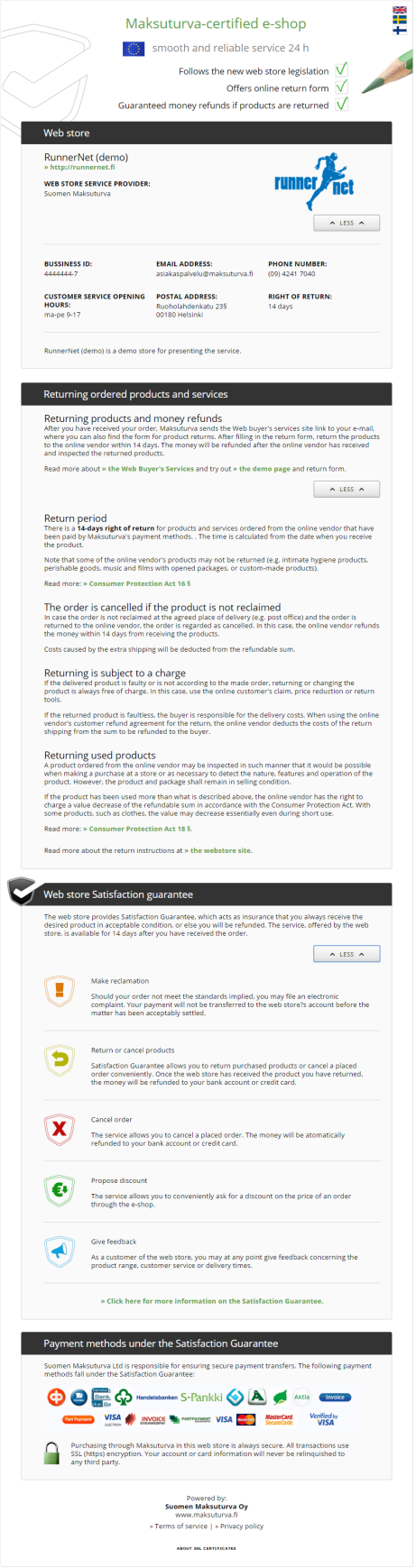
Business ID: 2121703-0
Domicile: Helsinki
» www.maksuturva.fi

Order rows in Web Buyer's Services after a confirmed change.

1.4 Certificate page

Webstores using a Satisfaction Guarantee service contain a link to a Certificate page (Linking the payment method banner to Certificate page).

Certificate page explains essential information about the webstore, available payment methods, webstore's product return policies and available Satisfaction Guarantee tools.


Maksuturva-certified e-shop
smooth and reliable service 24 h
Follows the new web store legislation
Offers online return form
Guaranteed money refunds if products are returned
Web store
RunnerNet (demo)
» http://runnernet.fi
WEB STORE SERVICE PROVIDER:
Suomen Maksuturva
LESS
BUSSINESS ID:
4444444-7
EMAIL ADDRESS:
asiakaspalvelu@maksuturva.fi
PHONE NUMBER:
(09) 4241 7040
CUSTOMER SERVICE OPENING HOURS:
ma-pe 9-17
POSTAL ADDRESS:
Ruoholahdenkatu 23§
00180 Helsinki
RIGHT OF RETURN:
14 days
RunnerNet (demo) is a demo store for presenting the service.
Returning ordered products and services
Returning products and money refunds
After you have received your order, Maksuturva sends the Web buyer's services site link to your e-mail, where you can also find the form for product returns. After filling in the return form, return the products to the online vendor within 14 days. The money will be refunded after the online vendor has received and inspected the returned products.
Read more about » the Web Buyer's Services and try out » the demo page and return form.
LESS
Return period
There is a 14-days right of return for products and services ordered from the online vendor that have been paid by Maksuturva's payment methods. . The time is calculated from the date when you receive the product.
Note that some of the online vendor's products may not be returned (e.g. intimate hygiene products, perishable goods, music and films with opened packages, or custom-made products).
Read more: » Consumer Protection Act 16 §
The order is cancelled if the product is not reclaimed
In case the order is not reclaimed at the agreed place of delivery (e.g. post office) and the order is returned to the online vendor, the order is regarded as cancelled. In this case, the online vendor refunds the money within 14 days from receiving the products.
Costs caused by the extra shipping will be deducted from the refundable sum.
Returning is subject to a charge
If the delivered product is faulty or is not according to the made order, returning or changing the product is always free of charge. In this case, use the online customer's claim, price reduction or return tools.
If the returned product is faultless, the buyer is responsible for the delivery costs. When using the online vendor's customer refund agreement for the return, the online vendor deducts the costs of the return shipping from the sum to be refunded to the buyer.
Returning used products
A product ordered from the online vendor may be inspected in such manner that it would be possible when making a purchase at a store or as necessary to detect the nature, features and operation of the product. However, the product and package shall remain in selling condition.
If the product has been used more than what is described above, the online vendor has the right to charge a value decrease of the refundable sum in accordance with the Consumer Protection Act. With some products, such as clothes, the value may decrease essentially even during short use.
Read more: » Consumer Protection Act 18 §.
Read more about the return instructions at » the webstore site.
Web store Satisfaction guarantee
The web store provides Satisfaction Guarantee, which acts as insurance that you always receive the desired product in acceptable condition, or else you will be refunded. The service, offered by the web store, is available for 14 days after you have received the order.
LESS
Make reclamation
Should your order not meet the standards implied, you may file an electronic complaint. Your payment will not be transferred to the web store?s account before the matter has been acceptably settled.
Return or cancel products
Satisfaction Guarantee allows you to return purchased products or cancel a placed order conveniently. Once the web store has received the product you have returned, the money will be refunded to your bank account or credit card.
Cancel order
The service allows you to cancel a placed order. The money will be atomatically refunded to your bank account or credit card.
Propose discount
The service allows you to conveniently ask for a discount on the price of an order through the e-shop.
Give feedback
As a customer of the web store, you may at any point give feedback concerning the product range, customer service or delivery times.
» Click here for more information on the Satisfaction Guarantee.
Payment methods under the Satisfaction Guarantee
Suomen Maksuturva Ltd is responsible for ensuring secure payment transfers. The following payment methods fall under the Satisfaction Guarantee:
Handelsbanken
S-Pankki
Aktia
Invoice
VISA
VISA
MasterCard SecureCode
Verified by VISA
Purchasing through Maksuturva in this web store is always secure. All transactions use SSL (https) encryption. Your account or card information will never be relinquished to any third party.
Powered by:
Suomen Maksuturva Oy
www.maksuturva.fi
» Terms of service | » Privacy policy
ABOUT SSL CERTIFICATES

An example of Certificate page

1.5. Ordering the Service

Webstore can order test service themselves using the subscription form:

Test environment:
Maksuturva Basic, Maksuturva Gold, eMaksut and eMaksut Laaja: http://test1.maksuturva.fi/tilaapalvelu

Production environment (Read more: 4. Testing)
Maksuturva Basic, Maksuturva Gold, eMaksut and eMaksut Laaja: https://www.maksuturva.fi/tilaapalvelu

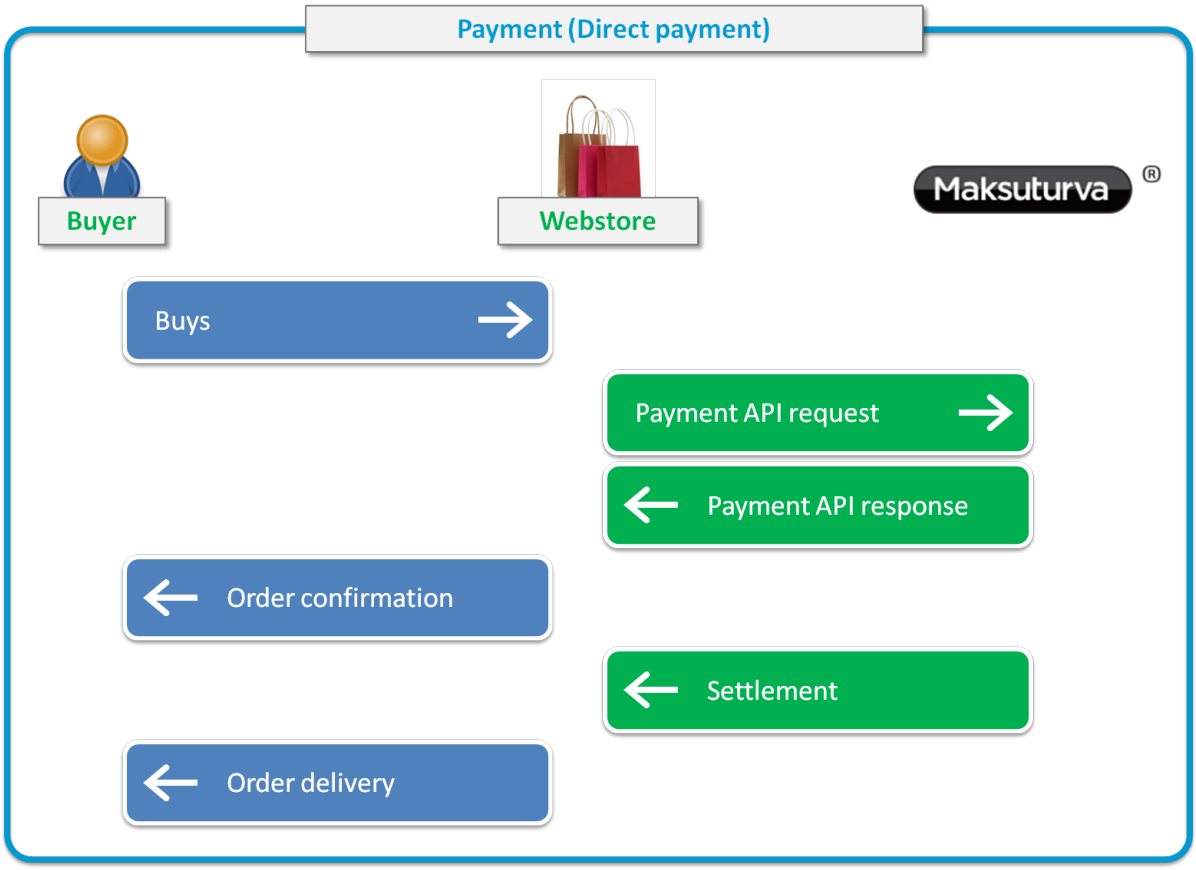
When you wish to have a service tailored to your needs, please contact to Maksuturva sales: https://www.maksuturva.fi/en/suomen-maksuturva-oy/contact-us/

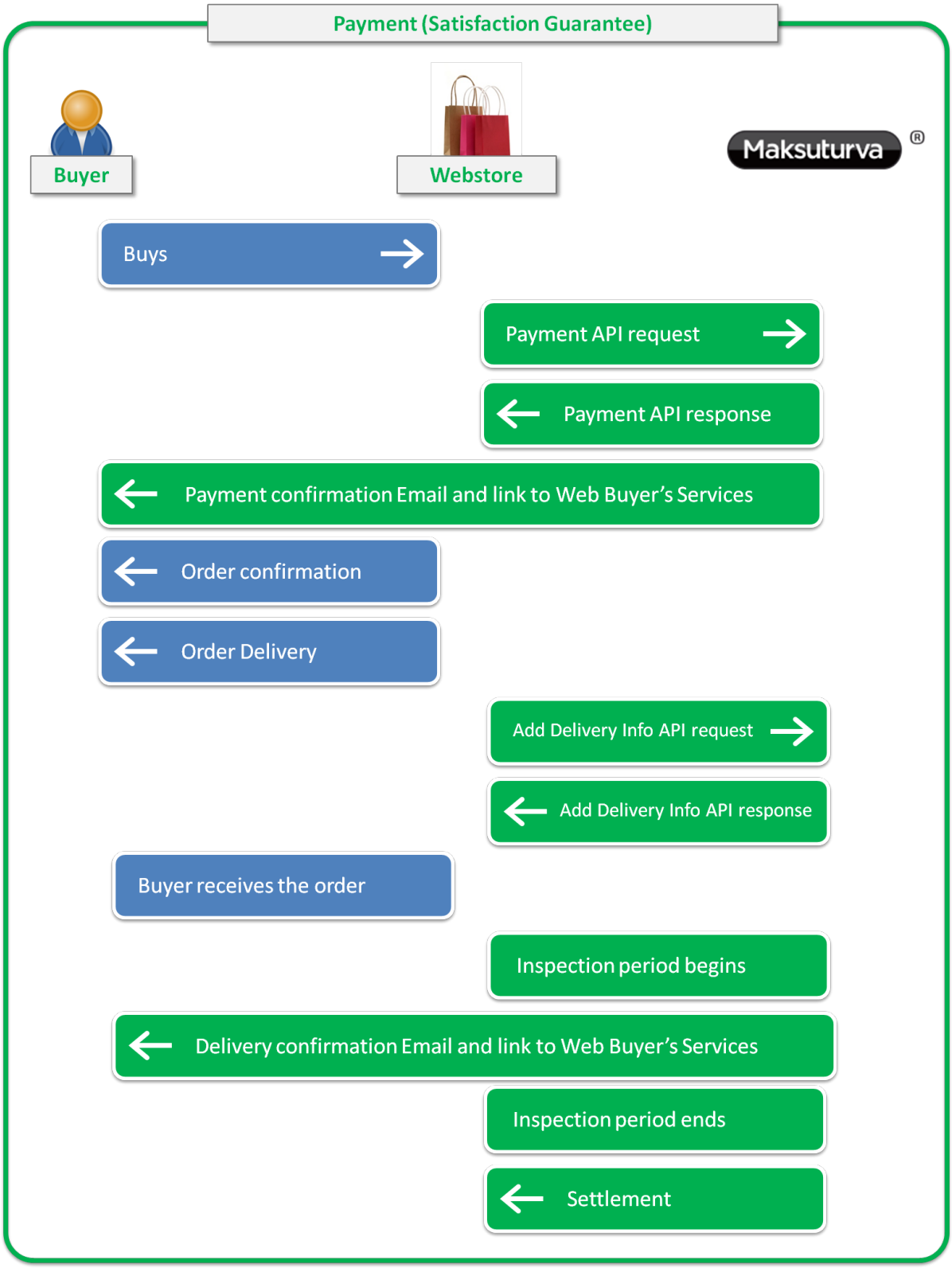
Please note that the production and the test environment are separate environments with separate accounts and credentials. **Test account credentials and keys do not work in the production environment or vice versa.**

2. Process diagrams of Maksuturva Services

2.1 Payments

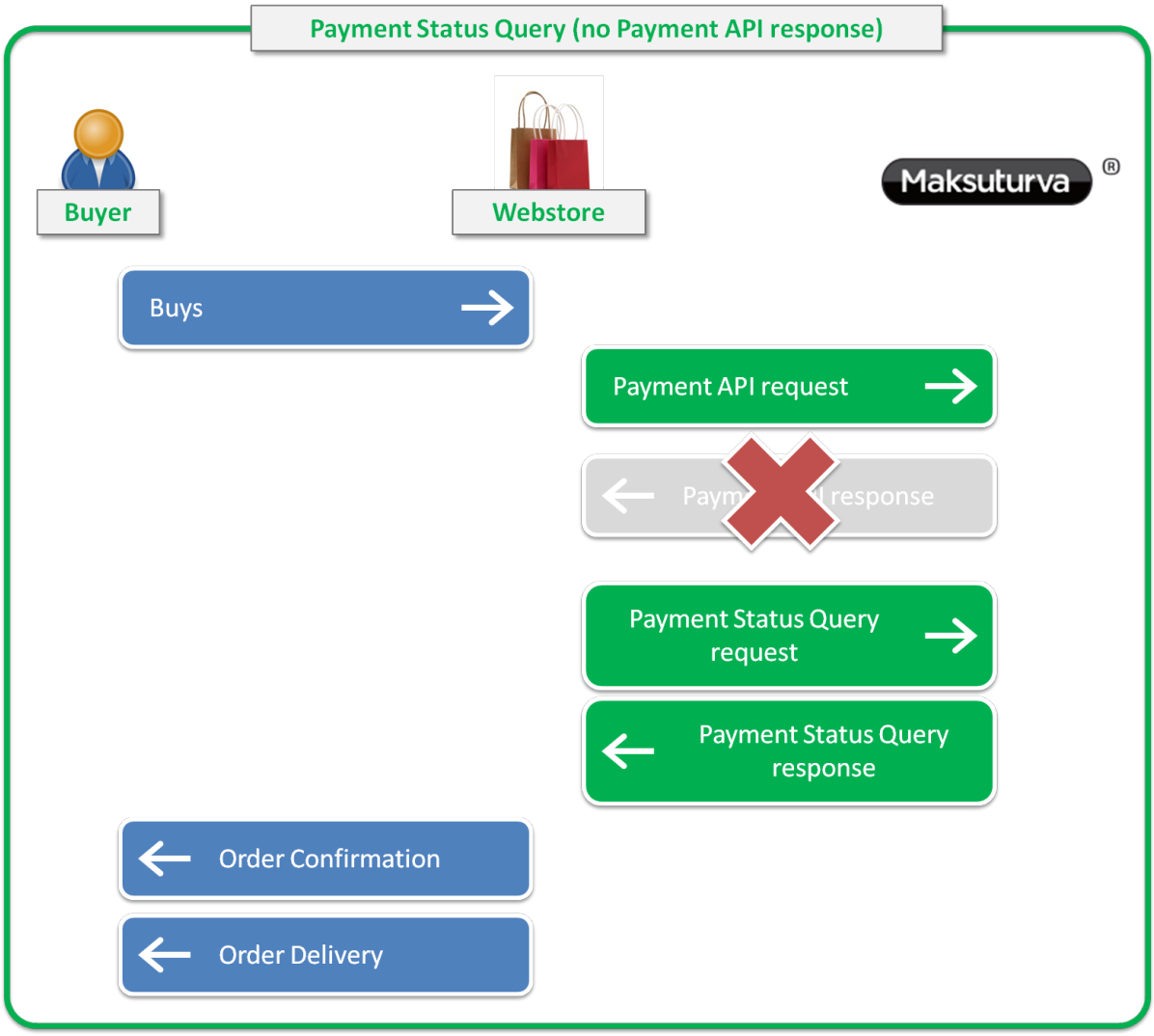
In case of both service types, Direct payments (e.g. eMaksut) and Escrow payments (e.g. Maksuturva Gold), the payment assignment is created using Payment API. After buyer has confirmed the Internet bank payment or Card payment or has approved an invoicing contract, Maksuturva redirects the buyer back to webstore with appropriate response information. The response is sent also in case of deliberate cancellations and errors. Webstore determines a separate return address (URL) for each scenario: ok, cancel and error.




Payment (Satisfaction Guarantee)
Buyer
Webstore
Maksuturva
Buys
Payment API request
Payment API response
Payment confirmation Email and link to Web Buyer's Services
Order confirmation
Order Delivery
Add Delivery Info API request
Add Delivery Info API response
Buyer receives the order
Inspection period begins
Delivery confirmation Email and link to Web Buyer's Services
Inspection period ends
Settlement

Payment Status Query

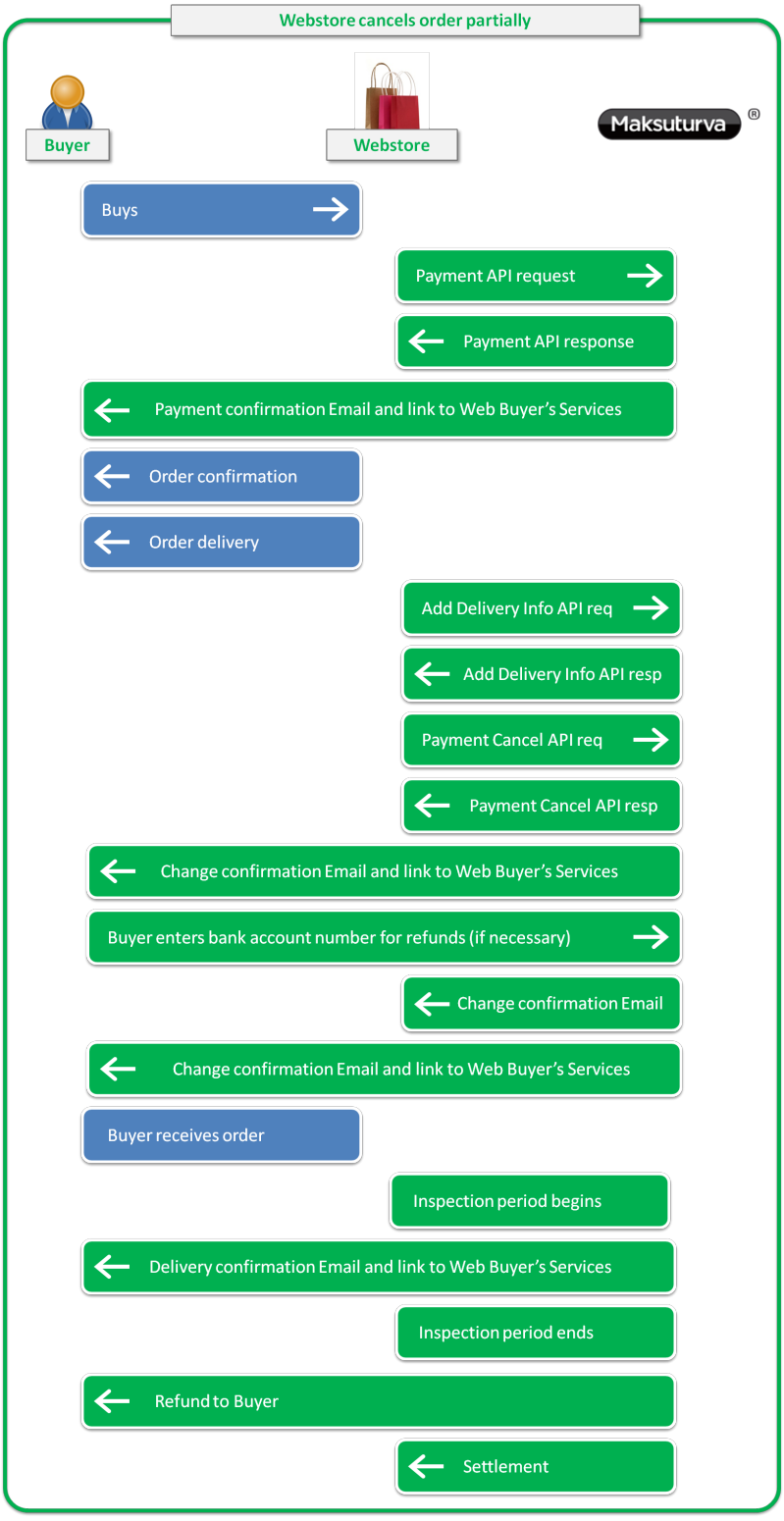
It is certainly possible that webstore never receives a response to new payment request. That is, the buyer never returns to any of the return addresses of webstore. This could for example occur in case of Internet connection shortage. These payment request should **not** be considered cancelled or erroneous. The actual payment status of every this kind of payment request or order (to which the webstore has not received an OK response) should be queried from Maksuturva through Payment Status Query API. If neccessary, Maksuturva verifies payment status from bank, card payment handler or credit provider. The query should be done earliest at least one hour after last buyer action to achieve the most reliable answer to the question whether buyer has paid the order. See full details from Payment Status Query API description.



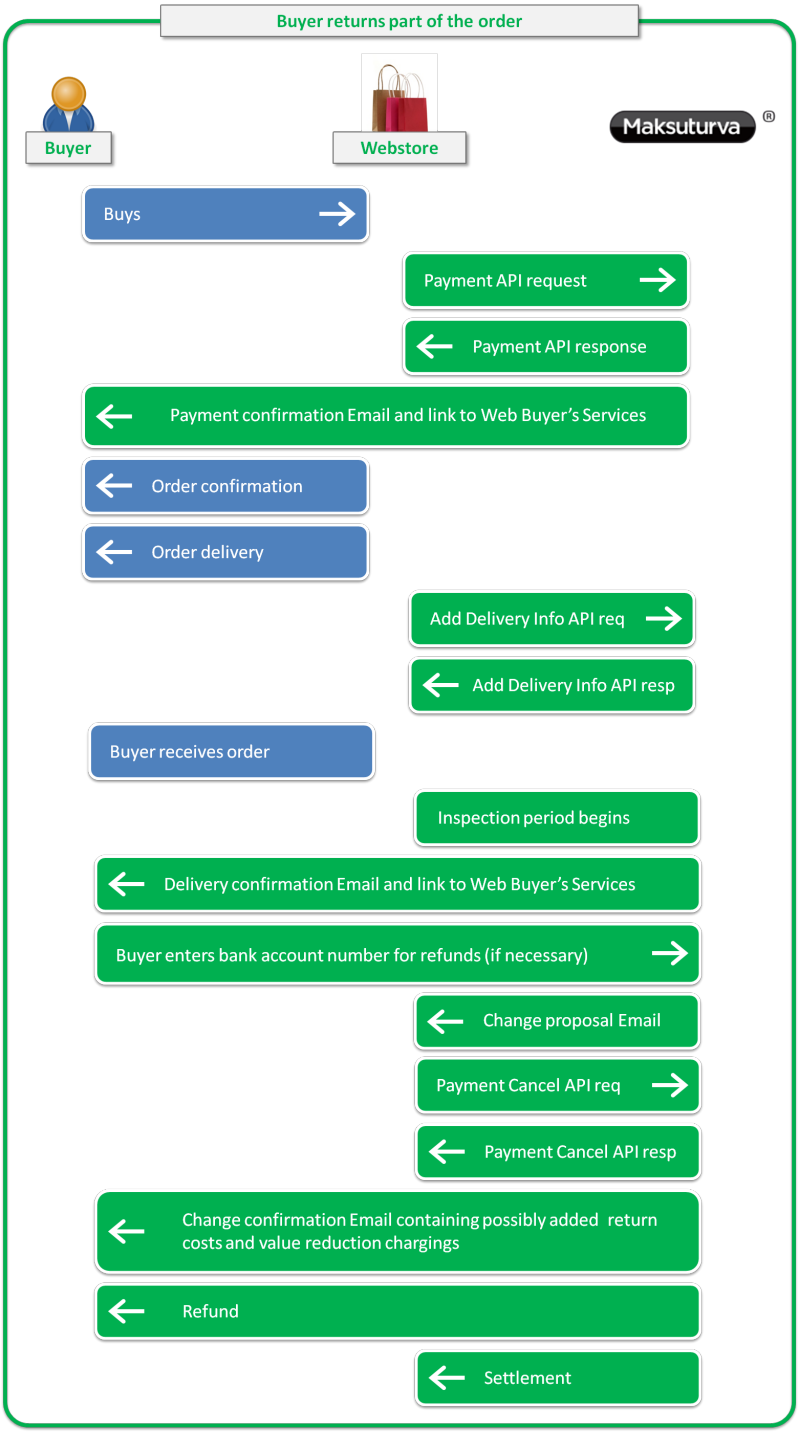
2.2 Refunds and Cancellations

Below one can see a couple of examples of return and cancellation processes.

If there's a need to make a refund to buyer after the payment has already been settled to the vendor one needs to make a *refund after settlement*. Refunds after settlements can be made for orders paid with card, Maksuturva Invoice, Maksuturva Part Payment, Maksuturva B2B Invoice, SveaWebPay Invoice or SveaWebPay Part Payment. For orders paid with online bank credentials the vendor needs make after settlement refunds him- / herself. The vendor can make refunds after settlements in KauppiasExtranet by using its refund tools. There is no technical interface for refunds after settlements nor can they be made in Web Buyer's Services.


Webstore cancels order partially
Buyer
Webstore
Maksuturva
Buys
Payment API request
Payment API response
Payment confirmation Email and link to Web Buyer's Services
Order confirmation
Order delivery
Add Delivery Info API req
Add Delivery Info API resp
Payment Cancel API req
Payment Cancel API resp
Change confirmation Email and link to Web Buyer's Services
Buyer enters bank account number for refunds (if necessary)
Change confirmation Email
Change confirmation Email and link to Web Buyer's Services
Buyer receives order
Inspection period begins
Delivery confirmation Email and link to Web Buyer's Services
Inspection period ends
Refund to Buyer
Settlement

return


Buyer returns part of the order
Buyer
Webstore
Maksuturva
Buys
Payment API request
Payment API response
Payment confirmation Email and link to Web Buyer's Services
Order confirmation
Order delivery
Add Delivery Info API req
Add Delivery Info API resp
Buyer receives order
Inspection period begins
Delivery confirmation Email and link to Web Buyer's Services
Buyer enters bank account number for refunds (if necessary)
Change proposal Email
Payment Cancel API req
Payment Cancel API resp
Change confirmation Email containing possibly added return costs and value reduction chargings
Refund
Settlement

2.3 Handling of response messages

Fields that are submitted from webstore to Maksuturva and back, may not change while they are being handled by Maksuturva. Fields submitted back must be compared against the original fields.

Fields that are generated by Maksuturva and submitted as part of the response, must be formally validated, as defined in the interface specification and in Hash Calculation chapter.

Hash must be calculated from the data in response and that hash must be compared with the pmt_hash field of the response. Calculated value may not differ from the one in response.

If all the checks above are successful, the response can be handled as a valid one.

3. Technical Interface Descriptions

All request to Maksuturva's **production environment** are done using encrypted **HTTPS** protocol. That is, for example `https://www.maksuturva.fi/NewPaymentExtended.pmt`. The encryption ensures no interface call information is visible to outsiders and also ensures that the actual response party is a genuine Maksuturva service.

On the other hand, all test requests to the **test environment** are done using unencrypted **HTTP** protocol. For example, `http://test1.maksuturva.fi/NewPaymentExtended.pmt`. For more details, see chapter Testing.

All Maksuturva service interfaces or APIa share a common parameter **webstore ID** (or "merchant id" or "Technical interface account") `pmt_sellerid`. The parameter (possibly together with the calculated hash) tells Maksuturva services what webstore made the request. For example, all new payment requests are connected to that webstore, payment method banner is returned according to that webstore's configuration or Certificate page displays information of the webstore in question.
The seller id is not a secret. Rather it is used as a public parameter for example when linking to the Certificate page:
`https://www.maksuturva.fi/Certificate.pmt?seller_id=[SELLER_ID]&request_locale=en`

The authenticity of the requests are verified by creating a string from predefined request parameters, appending the **webstore's secret key** to it and then calculating a hash of the complete string. Webstore must never expose the aforementioned secret key to others. Nor should it ever be part of the any request. This verification goes both ways. That is, webstore also must verify the authenticity of the responses from Maksuturva in the same manner. When the hashes match, the request receiver can be quite sure the requesting party is who it claims to be.

Since the secret key can change from time to time, all the requests containing hash contain also a **secret key generation** (i.e. version) parameter `pmt_ketygeneration`. The parameter tells which version of the secret key has been used. The original key generation is 001.

Each API's parameters and details in general can be found from their full interface description.

3.1 Retrieve Available Payment Methods (per order)

In cases where payer chooses specific payment method in the webstore, **the available payment methods must be received online for each order**. This is essential, since the available payment methods depend on the total amount of the order. Some payment methods include restrictions regarding the total amount (min and max amounts). To tackle this, the API contains a parameter `totalamount` which dictates what payment methods are to be included in the response. In other words, in case of small (e.g. below 70 €) and large (e.g. over 1000 €) orders only part of the payment methods is available for the buyer to choose from. At the moment, only bank and card payment methods are always available regardless the total amount of the order. However, when webstore has net settlements in use, each order's total amount must exceed the minimum transaction fee (e.g. usually 0,50 € in case on card payments). This is not applicable when webstore uses gross settlements where transaction fees are charged separately by invoice.

The available payment methods can be retrieved (using either GET or POST) from address `https://www.maksuturva.fi/GetPaymentMethods.pmt` (or `http://test1.maksuturva.fi/GetPaymentMethods.pmt` in the testing environment).

The payment method codes (<code>) values of the response are then used in Payment interface call as the value of parameter `pmt_paymentmethod`.

Request

#	Field	input name=	value=	Format	min length	C/O
1.	Seller ID	`sellerid`		AN50	4	C
2.	Language of the payment method display name	`request_locale`	fi, sv, en Default: fi	A2	2	O
3.	The total amount of the order that the buyer is about to pay, including all the costs.	`totalamount`	esim. 47,50	AN17	4	O

Response

The response (XML document) is returned as direct response to the HTTP GET/POST request. The contents are best described through an example. One example is below and further examples can be found from separate examples chapter.

Request example (GET):

```
https://www.maksuturva.fi/GetPaymentMethods.pmt?
sellerid=SELLERID&request_locale=fi&totalamount=47,50
```

Response example:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<paymentmethods>
  <paymentmethod>
    <code>FI01</code>
    <displayname>Nordea E-maksu</displayname>
  </paymentmethod>
  <paymentmethod>
    <code>FI06</code>
    <displayname>Osuuspankki Verkkomaksu</displayname>
  </paymentmethod>
</paymentmethods>
```

Material to webstore

Payment method logos etc. are available on our website:
https://www.maksuturva.fi/fi/ohjeet/materiaalipankki/materiaalit-verkkokauppaan/verkkomaksupainikkeet/ (only in Finnish)

3.2 Retrieve Dynamic Image Material

Dynamic image retrieving API description, version 1.1.

This service enables webstore to retrieve image material dynamically regarding Maksuturva services using their technical user id (seller id). The returned image (URL) contents depend on payment service type, configuration and features of the webstore.

Below are some examples of the images returned at the moment:

`bannertype=logo`
(when payment service type is Maksuturva)

`bannertype=logo`
(when payment service type is eMaksut)

`bannertype=payment_methods_horizontal&rowscolumns=2&request_locale=en`
(when payment service type is Maksuturva)

3.2.1 Changes

Date	Version	Change
August 2014	1.0	New features include payment method banner size (`rowscolumns`) and bannertype for logos.
May 2015	1.1	Image examples updated to match current services

3.2.2 Retrieving the images

The logo of payment service and payment methods available in webstore can be retrieved as PNG image from address `https://www.maksuturva.fi/Banner.pmt` (or `http://test1.maksuturva.fi/Banner.pmt` in testing environment).

The banner image is not created dynamically. Instead, there are several different sizes available from webstore to choose from. The desired size is part of the image request.

Webstore adds the image to their site using `img` tag, whose src-parameter refers to Banner.pmt API.

Request

#	Field	input name=	value=	Format	Min length	C/O
1.	Seller ID	`sellerid`		AN50	4	C
2.	Banner's type	`bannertype`	logo payment_methods_vertical payment_methods_horizontal	A50		O
3.	Language code	`request_locale`	fi, en, sv. Default: fi	A2	2	O
4.	Banner size in rows or columns	`rowscolumns`	horizontal: 2 – 6, vertical: 2 – 20 default: 3	N2	1	O

The response is a redirect (HTTP 302) to a PNG image.

Request examples:

```
<img src="https://www.maksuturva.fi/Banner.pmt?sellerid=SELLERID&bannertype=logo " />
```

or

```
<img src="https://www.maksuturva.fi/Banner.pmt?
sellerid=SELLERID&bannertype=payment_methods_vertical&request_locale=sv" />
```

3.2.3 Linking the payment method banner to Certificate page

Maksuturva services include a webstore specific Certificate page which includes the essential information and instructions for consumers regarding payments and order returns. The payment methods banner is advised to be used in the webstore by linking it to the Certificate page.

The Certificate page URL is formed in the following way:

#	Field	input name=	value=	Format	Min length	C/O
1.	Merchant's technical user id	`sellerid`		AN50	4	C
2.	Language code	`request_locale`	fi, en, sv. Default: fi	A2	2	O

An example of a payment method banner image linking to Certificate page

```
<a href="https://www.maksuturva.fi/Certificate.pmt?seller_id=SELLERID&request_locale=fi"
target="_blank" title="Lue lisää Tyytyväisyystakuusta">
    <img src=https://www.maksuturva.fi/Banner.pmt?
sellerid=SELLERID&bannertype=payment_methods_horizontal&request_locale=fi&rowscolumns=2 />
</a>
```

3.3 Payment

New payment API description, version 4.1.13

Webstore uses this service to deliver order information or payment transaction information to Maksuturva. Payer chooses a payment method and pays the order or decides to interrupt the payment process.

Return addresses

The payment process outcome is usually indicated by the webstore address (URL) to which the buyer is redirected.

- **OK return address** (`pmt_okreturn`): Payment confirmed successfully
- **Cancel return address** (`pmt_cancelreturn`): Payment process interrupted (buyer probably decided to interrupt it)
- **Error return address** (`pmt_errorreturn`): Payment process interrupted because of an error.
- **Delayed payment return address** (`pmt_delayedpayreturn`): Buyer confirmed that he or she will pay the order later by credit transfer or giro (payment not yet actually confirmed).
    - **Important!** Credit Transfer or Giro is not supported nowadays in "of-the-shelf" payment services. This is why we suggest using same address for both cancel and delayed payment return address (pmt_delayedpayreturn ~= pmt_cancelreturn).

In some cases, the buyer never manages in returning to the webstore. This is why it is crucial that every webstore also integrates and uses Payment Status Query API. See the interface description for full details and argumentation.

Escrow parameter

Please notice that `pmt_escrow` parameter value is determined by the payment service type webstore uses (wrong value results into a technical error):

- Satisfaction Guarantee payment service: `pmt_escrow=Y`
- Direct payment service: `pmt_escrow=N`

Choosing the payment method already in webstore

When Maksuturva and Webstore has mutually agreed on it, webstore can display the available payment methods for he buyer in their webstore. In this scenario, the Maksuturva's page for choosing the payment method is skipped altogether. This requires the webstore to **retrieve the available payment methods per order** using Retrieve Available Payment Methods API. Also, the Payment API must contain the code of the payment method (`pmt_paymentmethod`) buyer chose in the webstore. When buyer chooses payment method on a page displayed by Maksuturva, he/she agrees on the terms and conditions of Satisfaction Guarantee payments. On the other hand, if buyer chooses payment method in the webstore that is using Satisfaction Guarantee, webstore must display the aforementioned terms and conditions in the webstore and ensure the buyer agrees on them.

When Maksuturva's page for choosing the payment method is skipped the buyer's email address is a compulsory parameter in the Payment Request. Absence of the email address causes an error and the buyer is returned to the web store.

Delivery address of the order

The delivery address (`pmt_deliveryaddress` etc.) of each order must represent the real address to which the order is actually delivered. For example if buyer gives his home address the billing address (`pmt_buyeraddress` etc.) but chooses a delivery to a Parcel Point or chooses to fetch the product from the store, the delivery address must be either the Parcel Point's or store's address.

3.3.1 Changes

Date	Versio	Change
November 2010	2.5	Payment method value (pmt_paymentmethod) description added to the response message data.

February 2011	4.0	New interface version: 0004
		
		PAYMENT INPUT PARAMETERS:
		
		Formerly optional fields changed to mandatory:
		
		• mandatory payment due date (pmt_duedate)
		• mandatory error return (pmt_errorreturn) -
		• mandatory delivery name (pmt_deliveryname)
		• mandatory delivery address (pmt_deliveryaddress)
		• mandatory delivery postal code (pmt_deliverypostalcode)
		• mandatory hash calculation encoding (pmt_charset)
		
		New mandatory fields:
		
		• pmt_action (NEW_PAYMENT_EXTENDED)
		• input data encoding (and web store's encoding to browser) (pmt_charsethttp)
		
		Changes to support future features:
		
		• mandatory boolean field escrow (pmt_escrow)
		• mandatory boolean field escrow change allowed (pmt_escrowchangeallowed)
		
		Changes to support international (credit card) payments:
		
		• mandatory buyer's city (pmt_buyercity)
		• mandatory buyer's country code (pmt_buyercountry)
		• mandatory delivery city (pmt_deliverycity)
		• mandatory delivery country code (pmt_deliverycountry)
		
		Changes to support credits and part payments:
		
		• optional parameter telling whether webstore will send invoice (pmt_invoicefromseller)
		• optional buyer's social security number or company's business identification code (pmt_buyeridentificationcode)
		• mandatory order rows:
		  • Total number of order rows (pmt_rows)
		  • Product name (pmt_row_nameN)
		  • Product description (pmt_row_descN)
		  • Product quantity (pmt_row_quantityN)
		  • Delivery date of package or service (pmt_row_deliverydateN)
		  • Gross unit price of product (VAT included) (pmt_row_price_grossN)
		  • Net unit price of product (VAT excluded) (pmt_row_price_netN)

- VAT-percentage for the order row (pmt_row_vatN)
- Discount percentage of order row (pmt_row_discountN)
- Type of the order row (pmt_row_typeN)

Mandatory seller's or vendor's handling and postal cost: pmt_sellercosts

New hash:

- pmt_action
- pmt_version
- pmt_selleriban (only if available)
- pmt_id
- pmt_orderid
- pmt_reference
- pmt_duedate
- pmt_amount
- pmt_currency
- pmt_okreturn
- pmt_errorreturn
- pmt_cancelreturn
- pmt_delayedpayreturn
- pmt_escrow
- pmt_escrowchangeallowed
- pmt_invoicefromseller (only if available)
- pmt_paymentmethod (only if available)
- pmt_buyeridentificationcode (only if available)
- pmt_buyername
- pmt_buyeraddress
- pmt_buyerpostalcode
- pmt_buyercity
- pmt_buyercountry
- pmt_deliveryname
- pmt_deliveryaddress
- pmt_deliverypostalcode
- pmt_deliverycity
- pmt_deliverycountry
- pmt_sellercosts
- pmt_row_*
- fields in specified order, each row at time
- for each order row, one row at a time (if the field is included):
  - pmt_row_nameN
  - pmt_row_descN
  - pmt_row_quantityN
  - pmt_row_articlenrN
  - pmt_row_unitN
  - pmt_row_deliverydateN
  - pmt_row_price_grossN
  - pmt_row_price_netN
  - pmt_row_vatN
  - pmt_row_discountpercentageN
  - pmt_row_typeN
- <web store's secret key>

		OUTPUT PARAMETERS FOR PAYMENT Chosen payment method (pmt_paymentmethod) new codes and descriptions: • FI70 - SveaWebPay Invoice • FI71 - SveaWebPay Part Payment • FI80 - Paypal • FI90 - International Giro Change to support future features: (pmt_escrow) New field: • pmt_action (NEW_PAYMENT_EXTENDED) New fields in hash: • pmt_action (NEW_PAYMENT_EXTENDED) • pmt_version
May 2011	4.1	**PAYMENT INPUT PARAMETERS** New optional fields for each order row: • pmt_row_articlenrN product number or code in the webstore • pmt_row_unitN unit of quantity (kg, m, pcs ...) The above fields are also included in hash calculation when present in the request
September 2011	4.1.1	Added • additional information regarding integration of eMaksut service • instructions for fetching the allowed payment methods for a certain webstore • instructions for fetching the payment method banner
December 2011	4.1.2	Added • hints for hash calculation
March 2013	4.1.4	Buyer and delivery name and address fields specified longer.
June 2013	4.1.5	No changes
April 2014	4.1.6	Added new payment methods: • Maksuturva Invoice • Maksuturva Part Payment
May 2014	4.1.7	Added new optional parameter to Allowed Payment Methods query API. • totalamount - The total amount of the order that the buyer is about to pay

July 2014	4.1.8	Added a notification regarding the correctness of buyer’s delivery contact information.
August 2014	4.1.9	Replaced the interface description for fetching the payment method banner images with a reference to a separate document. Minor text changes.
September 2014	4.1.10	Renamed Aktia, Savings Bank and Local Cooperative Bank in the table of available payment methods.
October 2014	4.1.11	Added a notification to new payment response description about pmt_sellercosts parameter whose value can be larger in the response than in the original request if webstore has specified a invoicing fee for certain payment methods.
April 2015	4.1.12	Added new payment methods: • B2B Invoice (Yrityslasku) • PayPal • Resurs Bank Invoice, Part Payment, Card and New Card
May 2015	4.1.13	Defined how the money and percentage amounts should be given. Added remark that buyer's email address is mandatory when the payment method is preselected.

3.3.2. New Payment Request

Webstore delivers order information in a `<form>` using `POST` method as hidden input fields (`<input type=hidden>`) to address `https://www.maksuturva.fi/NewPaymentExtended.pmt` (or `http://test1.maksuturva.fi/NewPaymentExtended.pmt` in testing environment).

#	Field	input name=	value=	Format	Min length	C/O
1.	Action code	`pmt_action`	NEW_PAYMENT_EXTENDED	AN50	4	C
2.	Message version	`pmt_version`	0004	AN4	4	C
3.	Seller ID	`pmt_sellerid`		AN15		C
4.	Seller IBAN	`pmt_selleriban`		AN30	18	O
5.	**Unique** Payment ID	`pmt_id`		AN20		C
6.	Order id	`pmt_orderid`		AN50		C
7.	Payment reference number	`pmt_reference`		N20	4	C
8.	Payment due date	`pmt_duedate`	current date in format dd.MM.yyyy	AN10	10	C
9.	Buyer's (user's) locale	`pmt_userlocale`	fi_FI, sv_FI, en_FI	AN5	5	O
10.	Sum of products and services of the order	`pmt_amount`	n,nn e.g.. 50,00	AN17	4	C
11.	Payment currency	`pmt_currency`	EUR	AN3	3	C
12.	Ok return address (URL)	`pmt_okreturn`		AN200		C
13.	Error return address (URL)	`pmt_errorreturn`		AN200		C
14.	Cancel return address (URL)	`pmt_cancelreturn`		AN200		C
15.	Delayed payment return address (URL)	`pmt_delayedpayreturn`		AN200		C
16.	Escrow must be used	`pmt_escrow`	Satisfaction Guarantee payment service = Y Direct payment service = N	A1	1	C
17.	Escrow option changeable by buyer	`pmt_escrowchangeallowed`	N	A1	1	C
18.	Will webstore sends an invoice to the payer	`pmt_invoicefromseller`	Y/N	A1	1	O
19.	Payment method pre-chosen in webstore	`pmt_paymentmethod`	FINN (esim. FI01)	AN4	4	O
20.	Buyer’s social security number or company’s business identification code	`pmt_buyeridentificationcode`		AN11	9	O
21.	Buyer's name	`pmt_buyername`		AN100		C
22.	Buyer's billing address	`pmt_buyeraddress`		AN100		C
23.	Buyer's postal code	`pmt_buyerpostalcode`		N20		C

24.	Buyer's city	pmt_buyercity		AN100		C
25.	Buyer's country code	pmt_buyercountry	FI, SE, EN, ...	A2		C
26.	Buyer's phone number	pmt_buyerphone		AN40		O
27.	Buyer's email address	pmt_buyeremail		AN100		O
28.	Delivery recipient's name	pmt_deliveryname		AN100		C
29.	Delivery recipient's address	pmt_deliveryaddress		AN100		C
30.	Delivery recipient's postal code	pmt_deliverypostalcode		N20		C
31.	Delivery recipient's city	pmt_deliverycity		AN100		C
32.	Delivery recipient's country code	pmt_deliverycountry	FI, SE, EN, ...	A2		C
33.	Sum of handling and delivery costs of the order	pmt_sellercosts	n,nn e.g.. 10,00	AN17	4	C
34.	Order row count (number of order rows)	pmt_rows		N4	1	C
35.	Order row name	pmt_row_name*N*		AN40	1	C
36.	Order row description	pmt_row_desc*N*		AN1000	1	C
37.	Order row quantity	pmt_row_quantity*N*	Preferably an integer value but also decimal number values with up to 2 decimal values are accepted. e.g. 1, 2 or 1,75	AN10	1	C
38.	Order row article or product number	pmt_row_articlenr*N*		AN10	0	O
39.	Order row unit of quantity	pmt_row_unit*N*	e.g. kg, kpl	AN3	0	O
40.	Order row delivery date of package or service	pmt_row_deliverydate*N*	dd.mm.yyyy	AN10	10	C
41.	Order row gross unit price (VAT included)	pmt_row_price_gross*N*	n,nn e.g.. 10,00	AN17	4	C/O
42.	Order row net unit price (VAT excluded)	pmt_row_price_net*N*	n,nn e.g.. 10,00	AN17	4	C/O
43.	Order row VAT percentage	pmt_row_vat*N*	n,nn e.g.. 24,00	AN5	4	C
44.	Order row Discount percentage	pmt_row_discountpercentage*N*	n,nn e.g.. 10,00	AN5	4	C
45.	Order row type	pmt_row_type*N*	1 = product 2 = postal cost 3 = handling cost 4 = customized product (not eligible for returns) 5 = service 6 = discount	N5	1	C

46.	Hash calculation character encoding.	pmt_charset	ISO-8859-1, ISO-8859-15, UTF-8	AN15		C
47.	Character encoding of input data (and of webstore)	pmt_charsethttp	ISO-8859-1, ISO-8859-15, UTF-8	AN15		C
48.	Hash algorithm	pmt_hashversion		AN10		C
49.	Hash	pmt_hash		AN128	32	C
50.	Secret key generation	pmt_keygeneration		N3		C

Not that AN*xx* means that the field contains a maximum of xx alphanumeric characters. N means numeric. C means that the field is compulsory and O means it is optional. C/O means that the field is conditionally compulsory (for example two alternative fields `pmt_row_price_grossN` and `pmt_row_price_netN` of which one, and only one, must be present). An optional field may be missing altogether, have an empty value or have a value of at least the minimum length. That is, minimum length does not make a field mandatory but when it is present in the request it must have at least the minimum length.

3.3.2.1 Request parameter descriptions

#	Field	Description
1.	Action code	NEW_PAYMENT_EXTENDED
2.	Message version	Version of interface content
3.	Seller id	Technical user id given to the webstore by Maksuturva Group Oy.
4.	Seller IBAN	**Not in use.** Account number used for compensations to the seller. Optional and should be given only if the payment should be transferred to another account than defined in the Maksuturva service. Must be a Finnish bank account number in IBAN format.
5.	**Unique** Payment ID	Identifier given to the payment transaction by the webstore. **Must be unique**
6.	Order id	Identifier given to the order by the webstore. Order id should be known by the buyer.
7.	Payment reference number	Reference number given by the webstore and used when compensating the seller. The reference number must comply with the guidelines for a formal reference number issued by the Federation of Finnish Financial Services (FK, http://www.fkl.fi). The reference number must be at least 4 digits, the last of which is a check digit.
8.	Payment due date	A due date given to the payment by the webstore. **Currently should be today.**
9.	Buyer's (user's) locale	Information on the country and language choices of the buyer. ll_CC, where ll is a two character ISO 639-1 language code and CC is a two character ISO 3166 alpha-2 country code. The default fi_FI will be used if the locale is null. For example sv_FI and en_FI will be accepted.
10.	Sum of products and services of the order	The total gross sum of row types 1, 4, 5 and 6. If the order does not contain any postal or handling cost rows (types 2 and 3), then this is the total amount of the order. The amount must be presented with two decimals. The decimal delimiter is a comma, e.g. 94,80
11.	Payment currency	Currency used for the payment. Always EUR.
12.	Ok return address (URL)	The url to which the buyer's browser will be directed to in case of confirmed payments (the order has been paid)
13.	Error return address (URL)	The error url to which the buyer's browser will be directed to if there is an error in the paying process. A querystring parameter Payment ID (pmt_id) is appended to this URL before redirection.
14.	Cancel return address (URL)	The cancel url to which the buyer's browser will be directed to if the buyer interrupts the paying process. A querystring parameter Payment ID (pmt_id) is appended to this URL before redirection.
15.	Delayed payment return address (URL)	The url to which the buyer's browser will be directed to if the user has confirmed using the credit transfer or giro payment method which means the payment has not yet been registered. A querystring parameter Payment ID (pmt_id) is appended to this URL before redirection. Credit transfer or giro is not supported nowadays in "of-the-shelf" payment services. This is why we suggest using same address for both cancel and delayed payment return address (pmt_delayedpayreturn ~= pmt_cancelreturn).
16.	Escrow must be used	Tells whether escrow option is used with this payment. Values: Y/N The value is always Y for Satisfaction Guarantee payment services (for example Maksuturva Gold). Similarly, the value is always N for Direct payment services (for example eMaksut).
17.	Escrow option changeable by buyer	Currently always N.
18.	Will webstore sends an invoice to the payer	Parameter can be used, if the chosen payment method is invoice or part payment. Y = webstore will send an invoice to the payer N (DEFAULT) = Maksuturva or the Credit Provider will send an invoice to the payer

19.	Payment method pre-chosen in webstore	OPTIONAL. Payment method's code FI*nn*. Please check the possible values from chapter Response parameter descriptions.
20.	Buyer's social security number or company's business identification code	Buyer's social security number or company's business identification code.
21.	Buyer's name	Name of buyer (billing)
22.	Buyer's billing address	Address of buyer (billing). Street address or p.o. box
23.	Buyer's postal code	Postal code of buyer (billing)
24.	Buyer's city	City of buyer (billing)
25.	Buyer's country code	Country code of buyer (billing) (ISO 3166-1 alpha-2 standard based 2-character country code http://fi.wikipedia.org/wiki/ISO_3166)
26.	Buyer's phone number	Phone number of buyer (billing)
27.	Buyer's email address	Email address of buyer
28.	Delivery recipient's name	Name of recipient (delivery). Street address or p.o. box (*
29.	Delivery recipient's address	Address of recipient (delivery) (*
30.	Delivery recipient's postal code	Postal code of recipient (delivery) (*
31.	Delivery recipient's city	City of recipient (delivery) (*
32.	Delivery recipient's country code	Country code of recipient (delivery) (* (ISO 3166-1 alpha-2 standard based 2-character country code)
33.	Sum of handling and delivery costs of the order	The total gross sum of row types 2 and 3. The amount must be presented with two decimals. The decimal delimiter is a comma, e.g. 7,40
34.	Order row count (number of order rows)	The count or number of order rows as an integer.
35.	Order row name	Name of this order row Max length: 40 characters
36.	Order row description	Detailed description of this order row
37.	Order row quantity	The quantity of this order row. Preferably an integer value but also decimal number values with up to 2 decimal values are accepted. e.g. 1, 2 or 1,75 For more details, see section Calculation Rules for Order Rows
38.	Order row article or product number	Article or product number of this order row. Optional information.
39.	Order row unit of quantity	Unit of quantity of this order row, e.g. kg, l, m, kpl
40.	Order row delivery date of package or service	Date in form dd.mm.yyyy – please set as current date, if there is no other logical value to use.
41.	Order row gross unit price (VAT included)	Gross unit price of product (VAT included). Either net or gross value must be supplied, but not both! The total gross price of one order row is: row quantity * row gross unit price For more details, see section Calculation Rules for Order Rows

		The amount must be presented with two decimals. The decimal delimiter is a comma, e.g. 94,80
42.	Order row net unit price (VAT excluded)	Net unit price of product (VAT excluded). Either net or gross value must be supplied, but not both! For more details, see section Calculation Rules for Order Rows The amount must be presented with two decimals. The decimal delimiter is a comma, e.g. 94,80
43.	Order row VAT percentage	Decimal number with two decimal digits. The decimal delimiter is a comma. For example: 23,00 means "23 %" For more details, see section Calculation Rules for Order Rows
44.	Order row Discount percentage	Decimal number with two decimal digits. The decimal delimiter is a comma. For example: 10,00 means "10 %" For more details, see section Calculation Rules for Order Rows
45.	Order row type	1 = product 2 = postal cost 3 = handling cost 4 = customized product (not eligible for returns) 5 = service 6 = discount (always negative value)
46.	Hash calculation character encoding.	This field tells the character set that has been used to calculate the hash value for input data. Legal values are for now: ISO-8859-1, ISO-8859-15 and UTF-8. Hash calculation is always done from binary data, which is not obvious in some programming languages. You must handle the transformation from character based data to binary data before hash calculation correctly. If it's not possible to define the character set for hash calculation function, you must find out which character set is used internally by the hash algorithm.
47.	Character encoding of input data (and of webstore)	This field tells the character encoding of the input data. The Maksuturva payment interface handles HTTP request parameters according to this character encoding. Practically this is the character set reported by the browser, when you're browsing the checkout pages in the webstore.
48.	Hash algorithm	Name of the algorithm used to calculate the hash. For more detals, see section Hash Calculation
49.	Hash	Hash calculated from the request fields listed below and webstore's secret key: • pmt_action • pmt_version • pmt_selleriban (only if present in request) • pmt_id • pmt_orderid • pmt_reference • pmt_duedate • pmt_amount • pmt_currency • pmt_okreturn • pmt_errorreturn • pmt_cancelreturn • pmt_delayedpayreturn • pmt_escrow • pmt_escrowchangeallowed • pmt_invoicefromseller (only if present in request) • pmt_paymentmethod (only if present in request) • pmt_buyeridentificationcode (only if present in request) • pmt_buyername • pmt_buyeraddress • pmt_buyerpostalcode • pmt_buyercity

		• pmt_buyercountry
		• pmt_deliveryname
		• pmt_deliveryaddress
		• pmt_deliverypostalcode
		• pmt_deliverycity
		• pmt_deliverycountry
		• pmt_sellercosts
		• *for each order row, one row at a time:*
		  ◦ pmt_row_nameN
		  ◦ pmt_row_descN
		  ◦ pmt_row_quantityN
		  ◦ pmt_row_articlenrN
		  ◦ pmt_row_unitN
		  ◦ pmt_row_deliverydateN
		  ◦ pmt_row_price_grossN
		  ◦ pmt_row_price_netN
		  ◦ pmt_row_vatN
		  ◦ pmt_row_discountpercentageN
		  ◦ pmt_row_typeN
		• <webstore's secret key>
		
		For further information, see Hash calculation.

50.	Secret key generation	Webstore's secret key generation or version. Default or initial value is 001.

*) The delivery address (`pmt_deliveryaddress` etc.) of each order must represent the real address to which the order is actually delivered. For example if buyer gives his home address the billing address (`pmt_buyeraddress` etc.) but chooses a delivery to a Parcel Point or chooses to fetch the product from the store, the delivery address must be either the Parcel Point's or store's address.

3.3.2.2 Order Rows

Order rows (fields beginning with "pmt_row") have been mandatory since new payment interface version 0004 was represented in 2011. Order rows should contain comprehensive information about the order. Also, the amount fields (pmt_amount and pmt_sellercosts) must match the calculated gross sum of the associated row types.

Each order row can contain either net or gross unit price, but never both; that is not allowed.

Using net unit prices

If the webstore uses net price as basis for its calculations, it's recommended to include that net price in the message sent to Maksuturva (pmt_row_price_net). In such case the Maksuturva system will calculate the prices in the same way as the webstore – gross is calculated from net price and VAT values.

pmt_row_price_net = product unit price excluding VAT, without considering discount

Using gross unit prices

If the webstore uses gross price as basis for its calculations, it's recommended to include that gross price in the message sent to Maksuturva (pmt_row_price_gross). In such case the Maksuturva system will calculate net price, if necessary. Calculating the net price may be needed when Maksuturva forwards the order specification data to some payment or credit provider, that requires the data as net amounts. Calculating net from gross and then again gross from net may introduce rounding problems. These are entirely handled by Maksuturva system by adding up to two extra order rows to the order, that fix the rounding errors (one extra row possibly needed for both pmt_amount and pmt_sellercosts rounding error).

pmt_row_price_gross = product unit price including VAT, without considering discount

Handling discounts

A discount can be sent as a percentage value per order row, or there can be separate discount rows with negative price. **It's recommended to specify discount as a percentage inside each order row.** This, for example, makes it easier to handle certain refund cases; discounts need not be handled separately when they are included in product rows.

3.3.2.3 Calculation Rules for Order Rows

Calculation rules concerning the order specification data are described below. Variables beginning with "pmt" represent field data sent to the new payment interface. Variables beginning with "Calc" are calculated values used to check the validity of interface field data.

Gross and net prices have the following relationship:

```
pmt_row_price_gross = round ( pmt_row_price_net * ( 1 + 0.01 * pmt_row_vat ) )
```

IF net price was supplied (pmt_row_price_net):
Row sum after reducing the discount, without VAT:

```
CalcRowAmountExVAT = round (
                        round ( pmt_row_quantity * pmt_row_price_net ) *
                         ( 1 - 0.01 * pmt_row_discountpercentage )
                    )
```

IF gross price was supplied (pmt_row_price_gross):
Row sum after reducing the discount, without VAT:

```
CalcRowUnitNetPrice = round (
                         pmt_row_price_gross / ( 1 + 0.01 * pmt_row_vat )
                     )
CalcRowAmountExVAT = round (
                        round ( pmt_row_quantity * CalcRowUnitNetPrice ) *
                         ( 1 - 0.01 * pmt_row_discountpercentage )
                    )
```

Row sum of VAT (VAT is calculated based on the reduced net price):

```
CalcRowVAT = round (CalcRowAmountExVAT * ( 0.01 * pmt_row_vat ))
```

Row total amount (payable in effect on the gross amount):

```
CalcTotalRowAmount = round ( CalcRowAmountExVAT + CalcRowVAT )
```

The gross price of the whole order:

```
== pmt_amount + pmt_sellercosts
== sum ( CalcTotalRowAmount )
```

pmt_amount

```
== total sum of CalcTotalRowAmount for product and service rows (types 1, 4, 5 and 6)
```

pmt_sellercosts

```
== total sum of postal and handling cost rows (types 2 and 3)
```

In the interfaces all the money amounts and percentages must be presented with two decimals using comma as the decimal delimiter.

3.3.3 New Payment Response

The response data sent webstore by redirecting buyer's browser to the ok return address in cases where buyer has successfully confirmed the payment. Webstore may deliver the order immediately if wanted.

If the buyer interrupts the payment process, the buyer's browser will be redirected to the cancel return address.

If there was an error in the process, the buyer's browser will be redirected to the error return address.

These return scenarios have been briefly described already in section Payment.

NOTE: For interrupted/cancelled or erroneus payments, only querystring parameter pmt_id is appended to the response URL, and no other parameters.

Usually the pmt_sellercosts value in the response is exactly the same as the in the original new payment request. However, some payment methods make it possibly for the webstore to determine an additional invoicing fee or extra handling cost (a fixed money amount). In cases where the buyer chooses such payment method, the invoicing fee is added as a new order row to the order by Maksuturva. Also the pmt_sellercosts value is increased by the same fee amount. In these cases the response contains a pmt_sellercosts value that is greater than the original value in the request. The difference could be exactly the invoicing fee and nothing else.

3.3.3.1 Response validation

Fields that are submitted from webstore to Maksuturva and back, may not change while they are being handled by Maksuturva. Fields submitted back must be compared against the original fields.

Fields that are generated by Maksuturva and submitted as part of the response, must be formally validated, as defined in the interface specification.

Hash must be calculated from the data in response and that hash must be compared with the pmt_hash field of the response. Calculated value may not differ from the one in response.

If all the checks above are successful, the response can be handled as a valid one.

#	Field	input name=	value=	Format	C/O
1.	Action code	`pmt_action`	NEW_PAYMENT_EXTENDED	AN50	C
2.	Message version	`pmt_version`	0004	AN4	C
3.	Payment ID	`pmt_id`		AN20	C
4.	Reference number	`pmt_reference`		N20	C
5.	Sum of products and services of the order	`pmt_amount`		N17	C
6.	Payment currency	`pmt_currency`	EUR	AN3	C
7.	Sum of handling and delivery costs of the order	`pmt_sellercosts`		N17	C
8.	Payment method	`pmt_paymentmethod`		AN4	C
9.	Escrow is being used	`pmt_escrow`	Y / N	AN1	C
10.	Hash	`pmt_hash`		AN128	C

3.3.3.2 Response parameter descriptions

#	Field	Description
1.	Action code	NEW_PAYMENT_EXTENDED
2.	Message version	Version of interface content. Same as in the input message.
3.	Payment ID	**Unique** Identifying number given to the transaction by the webstore. Same as in the input message.
4.	Reference number	Reference number given by the webstore and used when the order is settled to the seller. The reference number is in its technical format, i.e. with leading zeros, without spaces and with total length of 20 digits. The response hash is calculated with the reference number in this format. Same as in the input message.
5.	Sum of products and services of the order	The total gross sum of row types 1, 4, 5 and 6. If the order does not contain any postal or handling cost rows (types 2 and 3), then this is the total amount of the order. The amount is presented with two decimals. The decimal delimiter is a comma, e.g. 94,80
6.	Payment currency	Currency of the payment. Always EUR.
7.	Sum of handling and delivery costs of the order	The total gross sum of row types 2 and 3. The amount must be presented with two decimals. The decimal delimiter is a comma, e.g. 7,40
8.	Payment method	Indicates what payment method the buyer chose. For available codes, see section Payment Method Codes. **Important!** Please do not use the values of the table above in production. Instead, retrieve official payment method codes and names using GetPaymentMethods.pmt API (see chapter Retrieve Available Payment Methods).
9.	Escrow is being used	Tells whether escrow option is used with this payment. Values: Y/N The value is always Y for Satisfaction Guarantee payment services (e.g. Maksuturva Gold). Correspondingly, the value is always N for Direct payment services (e.g. eMaksut).
10.	Hash	Hash calculated from predefined message fields and the webstore's secret key. The following fields are used to calculate the hash: • pmt_action • pmt_version • pmt_id • pmt_reference • pmt_amount • pmt_currency • pmt_sellercosts • pmt_paymentmethod • pmt_escrow For more details, see section Hash Calculation.

3.3.4 Payment Method Codes

Code	Description
FI01	Nordea E-maksu
FI02	Danske Bank Verkkomaksu
FI03	Aktia verkkomaksu
FI04	POP Pankin verkkomaksu
FI05	Tapiola Pankki Verkkomaksu
FI06	Osuuspankki Verkkomaksu
FI07	Ålandsbanken E-maksu
FI08	Säästöpankin verkkomaksu
FI09	Handelsbanken Verkkomaksu
FI10	S-pankki Verkkomaksu
FI50	Korttimaksu (Visa, Visa Electron, MasterCard)
FI60	Maksuturva Lasku
FI61	Maksuturva Erämaksu
FI70	SveaWebPay Lasku
FI71	SveaWebPay Osamaksu
FI72	Yrityslasku
USPP	PayPal
RBIN	Resurs Bank Lasku
RBPP	Resurs Bank Osamaksu
RBCD	Resurs Bank Kortti
RBRC	Resurs Bank Uusi kortti

Important! Please do not use the values of the table above in production. Instead, retrieve official payment method codes and names using GetPaymentMethods.pmt API (see chapter Retrieve Available Payment Methods).

3.4 Payment Status Query

Version 5.0.5

This interface enables webstore to query the status of the orders or payment transactions in Maksuturva.

How and when to use

Payment Status Query is recommended to be used even for orders that have been cancelled before paying or seem cancelled. That is, status should be queried even if the buyer has returned to the webstore using cancel or error return URL.

The first status query could be done for example one (1) or two (2) hours after the order was placed. This should tackle most situations. If Maksuturva does not know the status of the payment at that point, a call to corresponding bank's status query interface is triggered.

In some rare cases, which we have seen happening, the status query to the bank never succeeds, but then one or two banking days later, Maksuturva receives the buyer's money to the customer assets bank account. When that happens, Maksuturva marks the transaction as paid and from that point on the Payment Status Query API will report the order as paid. Therefore, f
or orders that stay in an unknown payment state, **it could be a good solution to poll Maksuturva's Payment Status Query for example once a day, for a period of a few banking days after the order was placed.**

About response codes briefly

Some status codes (related to Satisfaction Guarantee payment services) indicate that the webstore should react in some way:

- **Response code 20**: The buyer has paid the order but the **delivery information** has **not** yet been **given** or transmitted to Maksuturva. As soon as the delivery has been started or done, the delivery information should be given or transmitted to Maksuturva.
- **Response code 91**: The buyer has proposed a **cancellation** of the order. The proposal waits for the webstore's confirmation. Webstore should not confirm the cancellation until the buyer has returned the products. If the webstore had not delivered the products, the cancellation can be confirmed immediately. After the confirmation, the buyer will be fully refunded.
- **Response code 92**: The buyer has proposed a **partial refund** of the order. The proposal waits for the webstore's confirmation. Webstore should not confirm the change proposal until the buyer has returned the products. If the webstore had not delivered the products, the change proposal can be confirmed immediately. After the confirmation, the buyer will be refunded.
- **Response code 93**: The buyer has proposed a **partial refund and return of some deliveries** of the order. The proposal waits for the webstore's confirmation. Webstore should not confirm the change proposal until the buyer has returned the products. If the webstore had not delivered the products, the change proposal can be confirmed immediately. After the confirmation, the buyer will be refunded.
- **Response code 95**: The buyer has made a **reclamation**. The buyer and webstore must negotiate a solution after which the buyer can withdraw the reclamation. After this either party can make the appropriate changes to the order according to negotiated solution.

Please note that some of response code values indeed are only applicable to Satisfaction Guarantee payment services. Such response codes are marked with the following label: "(Satisfaction Guarantee)"

3.4.1 Changes

Date	Version	Change
November 2010	2.5	pmt_paymentmethod details added to the response description.
January 2011	4.0	New interface version: 0004 **REQUEST MESSAGE CHANGES (IN)** New fields - pmtq_action (PAYMENT_STATUS_QUERY) New fields in hash - pmtq_action (PAYMENT_STATUS_QUERY) - pmtq_version **RESPONSE MESSAGE CHANGES (OUT)** **Starting with version 0004, the character encoding of response message (XML) is UTF-8. Additionally, the only supported response type is XML (HTML is not supported anymore).** These changes have been made because buyer's address information received from credit check (for invoice and part payment) can contain characters that are not present in character sets ISO-8859-1 or ISO-8859-15. New fields: - pmtq_action (PAYMENT_STATUS_QUERY) - Added to support future versions: pmtq_escrow - Chosen payment method included: pmtq_paymentmethod New fields in hash - pmtq_action (PAYMENT_STATUS_QUERY) - pmtq_version - pmtq_paymentmethod - pmtq_escrow
Septemper 2011	4.0.1	Added support for eMaksut
March 2012	4.0.2	Fixed description of pmtq_amount
August 2012	4.0.3	Only supported response type is XML from this point on.
Toukokuu 2013	4.0.4	Removed payer's address etc. information from response message.
March 2012	5.0	New interface version: 0005 **REQUEST MESSAGE CHANGES (IN)** New fields: - pmtq_certification - pmtq_externalcode1 - pmtq_externalcode2 - pmtq_externaltext

		- pmtq_paymentstarttimestamp - pmtq_paymentdate New fields in hash: - pmtq_certification - pmtq_paymentdate Additionally fixed description of pmtq_amount
October 2013	5.0.1	Added important section "How and when to use"
January 2014	5.0.2	Fixed response status code 99 description
April 2014	5.0.3	Added new payment methods - Maksuturva Invoice - Maksuturva Part Payment
September 2014	5.0.4	Renamed Aktia, Savings Bank and POP Bank payment methods.
October 2014	5.0.5	Standardized some terminology about payment service types troughout the documentation.

3.4.2 Request parameter descriptions

Payment status query is possible as soon as the payment has been successfully received and saved by Maksuturva Group Oy.

Webstore delivers the query parameters in a `<form>` using `POST` method as hidden input fields (`<input type=hidden>`) to address `https://www.maksuturva.fi/PaymentStatusQuery.pmt` (or `http://test1.maksuturva.fi/PaymentStatusQuery.pmt` in testing environment).

#	Field	input name=	Description	value=	Format	C/O
1.	Action code	`pmtq_action`	PAYMENT_STATUS_QUERY	PAYMENT_STATUS_QUERY	AN50	C
2.	Message version	`pmtq_version`	Version of the interface content.	0005	AN4	C
3.	Seller ID	`pmtq_sellerid`	Seller ID given to the webstore by Maksuturva Group Oy. Technical interface user id.		AN15	C
4.	Payment ID	`pmtq_id`	**Unique** identifying number given to the payment transaction by webstore.		AN20	C
5.	Response type	`pmtq_resptype`	Currently only XML is supported.	XML	AN4	C
6.	Hash algorithm	`pmtq_hashversion`	Name of the algorithm used to calculate the hash. For more details, see section Hash Calculation.		AN10	C
7.	Hash	`pmtq_hash`	Hash calculated from predefined message fields and the webstore's secret key. The following fields are used to calculate the hash: • pmtq_action • pmtq_version • pmtq_sellerid • pmtq_id For more details, see section Hash Calculation.		AN128	C
8.	Secret key generation	`pmtq_keygeneration`	Generation number of the secret key given to the seller by Suomen Maksuturva. Default is 001		N3	C

The note AN*xx* means that the field contains a maximum of xx alphanumeric characters. N means numeric. C means that the field is compulsory and O means it is optional.

3.4.3 Response parameter descriptions

The character encoding of response message (XML) is UTF-8. Additionally, the only supported response type is XML. These restrictions are present because buyer's address information received from credit check (for invoice and part payment) can contain characters that are not present in character sets ISO-8859-1 or ISO-8859-15.

#	Field	input name=	Description	value=	Format	C/O
1.	Action code	`pmtq_action`	PAYMENT_STATUS_QUERY	PAYMENT_STATUS_QUERY	AN50	C
2.	Message version	`pmtq_version`	Version of interface content. Same as in the input message.	0005	AN4	C
3.	Seller ID	`pmtq_sellerid`	Seller ID given to the webstore by Maksuturva Group Oy. Technical interface user id.		AN15	C
4.	Payment ID	`pmtq_id`	**Unique** identifying number given to the payment transaction by webstore.		AN20	C
5.	Sum of products and services of the order	`pmtq_amount`	The total sum of products and services of the order. If the order does not contain any postal or handling costs, then this is the total amount of the order. The amount must be presented with two decimals. The decimal delimiter is a comma, e.g. 94,80		AN17	C
6.	Response code	`pmtq_returncode`	Indicates success or failure. Values and explanations of all the codes can be found at section Response code values.		AN2	C
7.	Response text	`pmtq_returntext`	Brief description of the response code.		AN100	C
8.	Tracking codes of the deliverables of the order	`pmtq_trackingcodes`	Tracking codes or information of untraceable deliveries submitted to Maksuturva system regarding this payment. Format [XX|XY|YY] 0-n times depending on the count of submitted tracking codes or information of untraceable deliveries. XX = Delivery type code XY = Tracking code, or the submitted text in case of untraceable delivery YY = Delivery status, see section Delivery status code values		AN400	O
9.	Sum of delivery and handling costs of the order	`pmtq_sellercosts`	The total sum of delivery and handling costs of the order. The amount must be presented with two decimals. The decimal delimiter is a comma, e.g. 7,40		AN17	O

10.	Payment Method	`pmtq_paymentmethod`	Indicates what payment method the buyer chose. For available codes, see section Payment Method Codes. **Important!** Please do not use the values of the table above in production. Instead, retrieve official payment method codes and names using GetPaymentMethods.pmt API (see chapter Retrieve Available Payment Methods).		AN4	O
11.	Escrow is being used	`pmtq_escrow`	Tells whether escrow option is used with this payment. Values: Y/N The value is always Y for Satisfaction Guarantee payment services (e.g. Maksuturva Gold). Correspondingly, the value is always N for Direct payment services (e.g. eMaksut).	Satisfaction Guarantee payments = Y Direct payments = N	AN1	O
12.	Verification info	`pmtq_certification`	Y = The payment has been verified. That is, the payer's identity has been confirmed somehow. In case of Invoice and Part Payment payment methods, Maksuturva has information about the payer's identity which is not the case with other payment methods. N = The payment has not been verified, or there is no verification information available.	Y,N	A1	O
13.	Payment service response code 1	`pmtq_externalcode1`	Informal/additional payment service response information received from the external payment service provider in error situations. In case of Nets (formerly known as Luottokunta), the LKPRC code. In OK cases this could contain for example external payment service provider's archive code of the payment.		AN50	O
14.	Payment service response code 2	`pmtq_externalcode2`	Informal/additional payment service response information received from the external payment service provider in error situations. In case of Nets (formerly known as Luottokunta), the LKSRC code. In OK cases this could contain for example external payment service		AN50	O

			provider's archive code of the payment.			
15.	Payment service response text	pmtq_externaltext	Informal/additional payment service response information received from the external payment service provider. Contains either information about successful payment or an error. If the external payment service provider does not provide this response information, this is either empty or it could contain for example external payment service provider's archive code or some other unique id of the payment.		AN200	O
16.	Time when the buyer began the payment process	pmtq_paymentstarttimestamp	The time when payer transfered to the Payment Service.	dd.MM.yyyy hh:mm:ss	AN19	O
17.	Payment date	pmtq_paymentdate	The date when payer paid. Or if it's not available, the date when the money was found from Maksuturva's Customer Assets bank account statement.	dd.MM.yyyy	AN10	O
18.	Hash	pmtq_hash	Hash calculated from predefined response message fields and the webstore's secret key. Uses the same version, key generation etc values that were in the request. The following fields are used to calculate the hash: • pmtq_action • pmtq_version • pmtq_sellerid • pmtq_id • pmtq_amount • pmtq_returncode • pmtq_returntext • pmtq_sellercosts (if available) • pmtq_paymentmethod (if available) • pmtq_escrow (if available) • pmtq_certification (if available) • pmtq_paymentdate (if available)		AN128	C

The note AN*xx* means that the field contains a maximum of xx alphanumeric characters. N means numeric. C means that the field is compulsory and O means it is optional.

3.4.3.1 Response code values

Response code	Short description	Description
00	Not paid.	Not paid. If additionally pmtq_amount = 0,00: The order does not exist OR it has been created but no payment method have been chosen. If additionally pmtq_paymentmethod and pmtq_amount are present in the response: An order has been created and a payment method have been chosen, but Maksuturva does not know (yet) if the payment has been or will be successful or not.
01	Query failed	Exception. Failed to retrieve the transaction information.
20 (Satisfaction Guarantee)	Paid, waiting for delivery	The customer has paid the transaction but the delivery information has not yet been given or transmitted to Maksuturva. As soon as the delivery has been done or started, the delivery information should be given or transmitted to Maksuturva.
30	Paid and... ...being delivered OR ...inspection period effective OR ...not yet settled to webstore	Paid and... ...the delivery is under way OR ...the order has been delivered to the buyer and the inspection period is effective. OR ...the inspection period has passed or is not applicable (i.e. Direct payment service) but the order has not yet been settled to webstore.
40	Settled to webstore	The order has been settled to webstore. The money amount will land on the vendor's bank account within a couple of workdays (depending on the source and target banks). **This is the final state for the transaction.** That is, the transaction is closed.
91 (Satisfaction Guarantee)	Buyer has proposed a **cancellation**	The buyer has proposed a **cancellation** of the order. The proposal waits for the webstore's confirmation. Webstore should not confirm the cancellation until the buyer has returned the products. If the webstore had not delivered the products, the cancellation can be confirmed immediately. After the confirmation, the buyer will be fully refunded.
92 (Satisfaction Guarantee)	Buyer has proposed a **partial refund**	The buyer has proposed a **partial refund** of the order. The proposal waits for the webstore's confirmation. Webstore should not confirm the change proposal until the buyer has returned the products. If the webstore had not delivered the products, the change proposal can be confirmed immediately. After the confirmation, the buyer will be refunded.
93 (Satisfaction Guarantee)	Buyer has proposed a **partial refund and return of some deliveries**	The buyer has proposed a **partial refund and return of some deliveries** of the order. The proposal waits for the webstore's confirmation. Webstore should not confirm the change proposal until the buyer has

		returned the products. If the webstore had not delivered the products, the change proposal can be confirmed immediately. After the confirmation, the buyer will be refunded.
95 (Satisfaction Guarantee)	Buyer has made a reclamation.	The buyer has made a **reclamation**. The buyer and webstore must negotiate a solution after which the buyer can withdraw the reclamation. After this either party can make the appropriate changes to the order according to negotiated solution.
99	Cancelled	The payment transaction and order has been cancelled. Webstore has either cancelled it or confirmed buyer's cancellation proposal. Also Maksuturva may have cancelled the order if requested. Important! In case of Direct payment services (e.g. eMaksut), this does not concern Bank payments.

3.4.3.2 Delivery status code values

Delivery status code values are only relevant in case of Satisfaction Guarantee services (e.g. Maksuturva Gold).

Status code	Short description	Description
00	Code received	We have received a tracking code. Delivery not yet found.
10	Being delivered	Delivery has been verified using a logistics company's system, or a certain time has passed since receiving information about an untraceable delivery.
20	Waiting for pickup	Logistics company has indicated that the delivery has arrived in the office where the order recipient can pick up the delivery. This status may also indicate that the delivery is currently being delivered to the recipient's delivery address.
80	Delivered	The recipient has received the order.

3.4.4. Payment Status Query in different environments

Maksuturva production environment

When a payer returns from an internet bank or from another payment service to Maksuturva service, the payment is set as confirmed. After this, all the payment status query requests will get a confirming response regardless of whether the payer returns to the web store before or after the query message or whether the payer returns at all. If the payer has not yet returned from e.g. an internet bank to the Maksuturva service when the payment status query is made, Maksuturva inquires the payment status from the bank but only if the payer has had sufficient time for making the payment. If the payment is confirmed by the bank, Maksuturva confirms the payment to the web store. The exact response code of a payment confirmation depends on whether the Satisfaction Guarantee or direct payment service is being used.

Maksuturva test environment

In the test environment the internet banks do not store the payment data and therefore Maksuturva can not verify bank payments in which the payer has not retuned to Maksuturva service from the bank. After the payer has returned from the internet bank to the Maksuturva service (from where the payer is instantly redirected to the web store), also the test payment is registered to Maksuturva and possible Payment Status Queries can now receive a payment confirmation.

If one wishes to test a status query for a payment that is still pending in the web store but is in fact paid, one needs to finalize the payment in the internet bank and let the web browser to proceed to the Maksuturva service but prevent it to redirect back to the web store. This way the payment will be confirmed in Maksuturva, but stays pending in the web store.

As the automatic redirecting from Maksuturva to the web store is instant, preventing the redirection requires special tools. With Firefox-browsers one can use e.g. the Tamper Data extension which (among other things) enables the user to allow or abort browser forwarding - e.g. from Maksuturva service to the web store.

Sandbox test page

While using Sandbox test credentials (in production or test environments) Maksuturva does not store payment event data and therefore the payment statuses can't be inquired either. For Payment Status Queries that use Sandbox test credentials Maksuturva service always responses with a random response code. Sandbox credentials should therefore be used only for validating the query message or connection to the Maksuturva service, but the received response codes should not be let to affect the order statuses in the web store.

3.5 Delivery Information Management

Version 2.1

This service enabled webstore to add, change or delete order delivery information to Maksuturva. Delivery information consists of delivery method and possible tracking code(s). Tracking code is used in case of trackable deliveries, such as Posti or Matkahuolto etc.

Tracking codes or information of untraceable deliveries of the order can be submitted after the payment has been registered to Maksuturva.

Please notice, that this service is only applicable to Satisfaction Guarantee payment services.

3.5.1 Add Delivery Information Request

Delivery information can **added** by sending the delivery method and tracking code(s) in a `<form>` using `POST` method as hidden input fields (`<input type=hidden>`) to address `https://www.maksuturva.fi/addDeliveryInfo.pmt` (or `http://test1.maksuturva.fi/addDeliveryInfo.pmt` in testing environment).

#	Field	input name=	value=	Format	C/O
1.	Message version	`pkg_version`	0002	AN4	C
2.	Seller ID	`pkg_sellerid`		AN15	C
3.	Payment ID	`pkg_id`		AN20	C
4.	Delivery method code	`pkg_deliverymethodid`		AN5	C
5.	Delivery info to be added	`pkg_adddeliveryinfo`		AN50	C
7.	Flag telling if all delivery info has been given	`pkg_allsent`	Y/N	AN1	C
8.	Force update	`pkg_forceupdate`	Y/N	AN1	O
9.	Reponse type	`pkg_resptype`	XML/HTML	AN4	O
10.	Return address (URL)	`pkg_return`		AN200	O
11.	Hash algorithm	`pkg_hashversion`		AN10	C
12.	Hash	`pkg_hash`		AN128	C
13.	Secret key generation	`pkg_keygeneration`		N3	C

The note AN*xx* means that the field contains a maximum of xx alphanumeric characters. N means numeric. C means that the field is compulsory and O means it is optional.

3.5.2 Update Delivery Information Request

Delivery information can **updated** by sending the delivery method and tracking code(s) in a `<form>` using `POST` method as hidden input fields (`<input type=hidden>`) to address `https://www.maksuturva.fi/updateDeliveryInfo.pmt` (or `http://test1.maksuturva.fi/updateDeliveryInfo.pmt` in testing environment).

#	Field	input name=	value=	Format	C/O
1.	Message version	`pkg_version`	0002	AN4	C
2.	Seller ID	`pkg_sellerid`		AN15	C
3.	Payment ID	`pkg_id`		AN20	C
4.	Delivery method code	`pkg_deliverymethodid`		AN5	C
5.	Delivery info to be added	`pkg_adddeliveryinfo`		AN50	C
6.	Delivery info to be removed	`pkg_remdeliveryinfo`		AN50	C
7.	Flag telling if all delivery info has been given	`pkg_allsent`	Y/N	AN1	C
8.	Force update	`pkg_forceupdate`	Y/N	AN1	O
9.	Reponse type	`pkg_resptype`	XML/HTML	AN4	O
10.	Return address (URL)	`pkg_return`		AN200	O
11.	Hash algorithm	`pkg_hashversion`		AN10	C
12.	Hash	`pkg_hash`		AN128	C
13.	Secret key generation	`pkg_keygeneration`		N3	C

The note AN*xx* means that the field contains a maximum of xx alphanumeric characters. N means numeric. C means that the field is compulsory and O means it is optional.

3.5.3 Delete Delivery Information Request

Delivery information can **deleted** by sending the tracking code(s) in a `<form>` using `POST` method as hidden input fields (`<input type=hidden>`) to address `https://www.maksuturva.fi/deleteDeliveryInfo.pmt` (or `http://test1.maksuturva.fi/deleteDeliveryInfo.pmt` in testing environment).

#	Field	input name=	value=	Format	C/O
1.	Message version	`pkg_version`	0002	AN4	C
2.	Seller ID	`pkg_sellerid`		AN15	C
3.	Payment ID	`pkg_id`		AN20	C
6.	Delivery info to be removed	`pkg_remdeliveryinfo`		AN50	C
7.	Flag telling if all delivery info has been given	`pkg_allsent`	Y/N	AN1	C
8.	Force update	`pkg_forceupdate`	Y/N	AN1	O
9.	Reponse type	`pkg_resptype`	XML/HTML	AN4	O
10.	Return address (URL)	`pkg_return`		AN200	O
11.	Hash algorithm	`pkg_hashversion`		AN10	C
12.	Hash	`pkg_hash`		AN128	C
13.	Secret key generation	`pkg_keygeneration`		N3	C

The note AN*xx* means that the field contains a maximum of xx alphanumeric characters. N means numeric. C means that the field is compulsory and O means it is optional.

3.5.4 Delivery Information Response

#	Field	input name=	value=	Format	C/O
1.	Message version	pkg_version	0002	AN4	C
2.	Seller ID	pkg_sellerid		AN15	C
3.	Payment ID	pkg_id		AN20	C
14.	Response code	pkg_resultcode		AN2	C
15.	Response text	pkg_resulttext		AN300	C
16.	Response hash	pkg_hash		AN128	C

3.5.5 Parameter descriptions

#	Field	Description
1.	Message version	Version of the API request and response contents.
2.	Seller ID	Seller ID given to the webstore by Maksuturva Group Oy. Technical interface user id.
3.	Maksun tunnus	**Unique** identifying number given to the payment transaction by webstore.
4.	Delivery method code	Delivery method code. For available id values, see section Delivery Method code values
5.	Delivery info to be added	Delivery info or tracking code(s) to be added to this order.
6.	Delivery info to be removed	Delivery info or tracking code(s), that was earlier submitted and now needs to be removed using update or delete API.
7.	Flag telling if all delivery info has been given	When submitting the last delivery info regarding an order, set this to “Y”. Otherwise the order might never be settled to webstore because Maksuturva waits for more delivery info.
8.	Force update	Normally add, update or remove do nothing to an order, that has already received data with ”All delivery info has been given” flag set as ”Y”. Setting force to “Y” overrides this.
9.	Response type	Determines whether the response is a) a XML document returned as HTTP response b) a HTML page
10.	Return address (URL)	In case of HTML response and if webstore has given a return address, the response is automatically (if Javascript enabled) sent as HTML FORM using GET method response with the response parameters appended as querystring to the return URL.
11.	Hash algorithm	Name of the algorithm used to calculate the hash. For more details, see section Hash Calculation.
12.	Hash	Hash calculated from predefined message fields and the webstore's secret key. The following fields are used to calculate the hash: • pkg_id • pkg_deliverymethodid • pkg_allsent
13.	Secret key generation	Generation number of the secret key given to the seller by Suomen Maksuturva. Default is 001
14.	Response code	Indicates success or failure. Values and explanations of all the codes can be found from section Return code values.
15.	Response text	Brief description of the failure reason. For example which tracking codes did not pass the the formal validation. Syntax is: *error code: error description* For example: 30: JJFI00000012345123456,30:JJFI00000012345123457
16.	Response hash	Hash calculated from predefined message fields and the webstore's secret key. Uses the same version, key generation etc values that were in the request. The following fields are used to calculate the hash: • pkg_sellerid • pkg_id • pkg_resultcode

3.5.6 Delivery Method codes

Delivery method code	Short description	Description
ITELL	Posti (formerly known as Itella) traceable delivery	The products are delivered as a postal parcel or registered letter (Posti). The delivery information can be confirmed as soon as the delivery has a tracking code. The tracking code is for example a JJFI code obtained from Posti and can be used to trace the package in Posti's tracking service.
MATHU	Matkahuolto traceable delivery	The products are delivered as a registered Matkahuolto shipment. The delivery data is processed similarly as Posti's.
KAUKO	Kaukokiito traceable delivery	The products are delivered as a registered Kaukokiito shipment. The delivery data is processed similarly as Posti's.
TRANS	Transpoint traceable delivery	The products are delivered as a registered Transpoint shipment. The delivery data is processed similarly as Posti's.
KIITO	Kiitolinja traceable delivery	The products are delivered as a registered Kiitolinja shipment. The delivery data is processed similarly as Posti's.
MYPAC	MyPack traceable delivery	The products are delivered as a registered MyPack shipment. The delivery data is processed similarly as Posti's.
DBSCH	DB Schenker traceable delivery	The products are delivered as a registered DB Schenker shipment. The delivery data is processed similarly as Posti's.
FEDEX	FedEx traceable delivery	The products are delivered as a registered FedEx shipment. The delivery data is processed similarly as Posti's.
DHLDP	DHL traceable delivery	The products are delivered as a registered DHL shipment. The delivery data is processed similarly as Posti's.
TNTNV	TNT traceable delivery	The products are delivered as a registered TNT shipment. The delivery data is processed similarly as Posti's.
UPSAM	UPS traceable delivery	The products are delivered as a registered UPS shipment. The delivery data is processed similarly as Posti's.
UNREG	Untraceable letter	The products are delivered in a regular letter. The delivery has no tracking code. The delivery information should not be given until the letter has been sent.
PICKU	Pick up	The buyer will pick up the products from the webstore's outlet. The delivery has no tracking code. The delivery info should not be given until the buyer has picked up the products.
ODLVR	Own delivery	The webstore will deliver the products to the buyer by their own means. The delivery has no tracking code. The delivery info should not be given until the buyer received the products.
SERVI	Service	A service is performed for the buyer. No physical delivery is attached to the order. Service delivery information should not be given until the service has been performed.
ELECT	Electronic delivery	The order is delivered electronically (e.g. per email) and can be consider received immediately upon sending. The delivery has no tracking code. The delivery should not be given until the order has been delivered electronically.
UNREF	Foreign untraceable letter	The products are delivered in a regular letter abroad. The delivery has no tracking code. The delivery information should not be given until the letter has been sent. The delivery period is much longer than in case of domestic letters (UNREG).
UNRDL	Untraceable delivery	The products are delivered in a untraceable parcel. The delivery has no tracking code. The delivery information should not be given until the parcel has been sent.

3.5.7 Response code values

Response code	Short description	Description
00	Ok	The message was processed ok.
10	Not found	Exception. The transaction could not be found.
11	Processing failed	Exception. Processing the message failed.
12	No service	Exception. The webstore does not have a valid service
20	Invalid data	The delivery information is not formally correct. More information available in the answer.
30	Already submitted	The delivery information has already been received.
31	Delivery info not found	Exception. The delivery information could not be found.
40	Incorrect delivery method	The delivery information does not match the information received earlier. A transaction can only have one delivery method.
41	Delivery method forbidden	The delivery information is not valid, the delivery method is not connected to the service.
42	Force update required	The transaction has confirmed delivery information. An update requires the override option. "pkg_forceupdate" should be "Y".
99	Muita virheitä	The delivery information contains errors. More information available in the answer.

3.6 Payment refunds and cancellations

Version 5.0

This service enabled webstore to make or confirm refunds and cancellations to orders.

Please notice, that this service is only applicable to Satisfaction Guarantee payment services.

3.6.1 Changes

Muutospvm	Dokumentin versio	Muutos
February 2011	4.0	**REQUEST PARAMETERS** New fields: - pmtc_action (CANCEL) New fields required for **partial refund** - Cancellation type (pmtc_canceltype) - Money amount to be refunded (pmtc_cancelamount) New fields in hash: - pmtc_action (CANCEL) - pmtc_version - pmtc_canceltype - pmtc_cancelamount (when canceltype = PARTIAL_REFUND / PARTIAL_REFUND_AND_RETURN_OF_DELIVERIES) **RESPONSE PARAMETERS** New fields in hash: - pmtc_action (CANCEL) - pmtc_version in response hash. - Changed order of hash parameters. New response code 31: Cancellation information from webstore and buyer do not match
September 2013	5.0	**REQUEST PARAMETERS** New fields: - Refund IBAN (pmtc_payeribanrefund) - **Important! Avaiiable only if separately agreed on with Maksuturva.** - Peruutuksen kuvaus (pmtc_canceldescription) - Peruutuksen syykoodi (pmtc_cancelreason) New fields in hash: - pmtc_payeribanrefund **RESPONSE PARAMETERS** New fields in hash: - errors -element that specifies erroneous input parameters and general errors New response code 90: Errors in input data, specified in element errors

3.6.2 Payment Cancel Request

Cancellations and refunds are allowed as long as the order is not being settled or has not been settled to webstore.

Webstore delivers the request parameters in a `<form>` using `POST` method as hidden input fields (`<input type=hidden>`) to address `https://www.maksuturva.fi/PaymentCancel.pmt`
(or `http://test1.maksuturva.fi/PaymentCancel.pmt` in test environment)

#	Field	input name=	value=	Format	C/O
1.	Action code	pmtc_action	CANCEL	AN6	C
2.	Message version	pmtc_version	0005	AN4	C
3.	Seller ID	pmtc_sellerid		AN15	C
4.	Payment ID	pmtc_id		AN20	C
5.	Payment amount	pmtc_amount		N17	C
6.	Payment currency	pmtc_currency		AN3	C
7.	Cancellation type	pmtc_canceltype	FULL_REFUND PARTIAL_REFUND PARTIAL_REFUND_AND_RETURN_OF_DELIVERIES	AN40	C
8.	Amount to be refunded	pmtc_cancelamount	e.g. 15,00	N17	C/O
9.	Buyer's refund bank account	pmtc_payeribanrefund	IBAN number **Important! Avaiiable only if separately agreed on with Maksuturva.**	AN36	O
10.	Cancel description	pmtc_canceldescription		AN500	O
11.	Cancel reason code	pmtc_cancelreason		AN5	O
12.	Response type	pmtc_resptype	XML	AN4	C
13.	Hash algorithm	pmtc_hashversion		AN10	C
14.	Hash	pmtc_hash		AN128	C
15.	Secret key generation	pmtc_keygeneration	Default: 001	N3	C

Optional change rows

In addition to the data described above, it is possible to submit change order rows that describe in more detail the changes the merchant wishes to make to the order.

Pre-conditions for submitting change rows:

- The merchant initiates the change. Change Rows can not be submitted, if the buyer has made a proposal for change via Web Buyer's Services and the merchant is using the interface to accept/ confirm payer's proposal.
- The original order was submitted to Maksuturva with order rows.
-

The change is of type *PARTIAL_REFUND* or *PARTIAL_REFUND_AND_RETURN_OF_DELIVERIES.* For a *FULL_REFUND* Maksuturva will do the order row level changes automatically.

NOTE! If any change rows are submitted, the total sum calculated from them must match the total amount of the change submitted in the field *pmtc_cancelamount*. If these do not match, but the difference is small, the Maksuturva system creates a rounding fix row to force the sum of change rows match the value of *pmtc_cancelamount*.

Change row types

Submitting the number of returned products of an original order row:
Changes (refunds) can be linked with original order rows by submitting a returned quantity of products in the parameter field *pmtc_refund_quantity_of_original_rowN*, where N is the original row number the change concerns. In this way, the change can be attributed to a particular quantity of a product that was part of the original order. The quantity returned cannot exceed the quantity in the original order. When *pmtc_refund_quantity_of_original_rowN* is submitted, then other parameters concerning that particular order row must not be submitted.

Submitting additional change rows:
In addition to the above, 0-3 additional change rows can be submitted. They can be used to alter the total amount of the change. Negative amount means returning/crediting money to the buyer. Positive amount means holding money by the merchant, due to handling or refund costs. Each additional change row requires 5-7 of the parameter fields of the table below to be submitted. Fields for article number and unit are optional. The price must be communicated either gross or the net, but not both.

#	Field	input name=	value=	Format	C/O
	Row type: Returned quantity of products (0-N pcs):				
1.	The returned quantity of products of row N in the original order	pmtc_refund_quantity_of_original_rowN *(where N is the original order row number)*	e.g.. 1	N8	C/O
	Row type: Additional change row (0-3 pcs):				
2.	Product or row name	pmtc_additional_row_nameN *(where N is number 1-3)*	e.g. "Product 1"	AN40	C/O
3.	Row descrption	pmtc_additional_row_descN		AN1000	C/O
4.	Row quantity	pmtc_additional_row_quantityN	e.g.. 1 or 1,00	AN8	C/O
5.	Product article number	pmtc_additional_row_articlenrN		AN10	O
6.	Row unit of quantity	pmtc_additional_row_unitN	e.g. "kg" or "pcs"	AN3	O
7.	Row gross unit price (VAT included)	pmtc_additional_row_price_grossN *(either gross or net must be submitted, but not both!)*	e.g. 10,00	AN17	C/O
8.	Row net unit price (VAT excluded)	pmtc_additional_row_price_netN *(either gross or net must be submitted, but not both!)*	e.g. 8,00	AN17	C/O
9.	Row VAT percentage	pmtc_additional_row_vatN	e.g. for VAT 24 %: 24,00	AN5	C/O

Not that AN*xx* means that the field contains a maximum of xx alphanumeric characters. N means numeric. C means that the field is compulsory and O means it is optional. C/O means that the field is conditionally compulsory (for example two alternative fields `pmt_row_price_grossN` and `pmt_row_price_netN` of which one, and only one, must be present). An optional field may be missing altogether, have an empty value or have a value of at least the minimum length. That is, minimum length does not make a field mandatory but when it is present in the request it must have at least the minimum length.

3.6.2.1 Request parameter descriptions

#	Field	Description
1.	Action code	Action being called (CANCEL).
2.	Message version	Version of the interface content.
3.	Seller ID	Seller ID given to the webstore by Maksuturva Group Oy. Technical interface user id.
4.	Payment ID	**Unique** identifying number given to the payment transaction by webstore.
5.	Payment amount	The original amount of the order. Same value as in send in Payment API (pmt_amount). The amount must be presented with two decimals. The decimal delimiter is comma, e.g. 94,80
6.	Payment currency	The payment currency. Same value as in send in Payment API (pmt_currency).
7.	Cancellation type	Tells, whether this is • a full refund (FULL_REFUND) • a reduction of price (PARTIAL_REFUND) • a partial return of deliveries (PARTIAL_REFUND_AND_RETURN_OF_DELIVERIES)
8.	Amount to be refunded	Amount to be refunded. Decimal number with comma and two decimal digits, for example: 15,00 **Important! Used only in case of partial refunds! That is, this parameter should be ommited if cancellation type is full refund (FULL_REFUND).**
9.	Buyer's refund bank account	This is only applicable if webstore has separately acquired tools from Maksuturva which allow webstore to make refunds independently. That is, Maksuturva does not contact buyer. Furthermore, buyer has no Web Buyer's Services at his or her use. In these cases it might be neccessary for the webstore to pass a IBAN for the refund. The IBAN is only required in case on bank payments. That is, card payments, invoice payments and part payments do not require it. **Important! Avaiiable only if separately agreed on with Maksuturva.**
10.	Cancel description	Optional description for the refund that could be should to the buyer.
11.	Cancel reason code	Optional reason for the refund that could be should to the buyer. Possible values are: Code: NOTDE — Order has not been delivered Code: WSIZE — Item has wrong size Code: INCOR — Item does not correspond to order Code: DEFEC — Item is broken or defective Code: OUTOF — Item is out of stock Code: OTHER — Other reason
12.	Response type	Always XML
13.	Hash algorithm	Name of the algorithm used to calculate the hash. For more details, see section Hash Calculation.
14.	Hash	Hash calculated from predefined message fields and the webstore's secret key. The following fields are used to calculate the hash: • pmtc_action • pmtc_version

		• pmtc_sellerid • pmtc_id • pmtc_amount • pmtc_currency • pmtc_canceltype • pmtc_cancelamount (if pmtc_canceltype is either PARTIAL_REFUND or PARTIAL_REFUND_AND_RETURN_OF_DELIVERIES) • pmtc_payeribanrefund (if given) For more details, see section Hash Calculation.
15.	Secret key generation	Generation number of the secret key given to the seller by Suomen Maksuturva. Default is 001

3.6.3 Payment Cancel Response

#	Field	input name=	value=	Format	C/O
1.	Action code	pmtc_action	CANCEL	AN6	P
2.	Message version	pmtc_version	0005	AN4	P
3.	Seller ID	pmtc_sellerid		AN15	P
4.	Payment ID	pmtc_id		AN20	P
5.	Response code	pmtc_returncode		AN2	P
6.	Response text	pmtc_returntext		AN100	P
7.	Hash	pmtc_hash		AN128	P
8.	Details of all the errors	errors		N/A	V

3.6.3.1 Response parameter descriptions

#	Field	Desctiption
1.	Action code	Action called (CANCEL).
2.	Message version	Version of the interface content.
3.	Seller ID	Seller ID given to the webstore by Maksuturva Group Oy. Technical interface user id.
4.	Payment ID	**Unique** identifying number given to the payment transaction by webstore.
5.	Response code	Indicates success or failure. See below for the values and explanations of all the codes.
6.	Response text	Brief description of the failure reason. Empty in case of success.
7.	Hash	Hash calculated from predefined message fields and the webstore's secret key. Uses the same version, key generation etc values that were in the request. The following fields are used to calculate the hash: • pmtc_action • pmtc_version • pmtc_sellerid • pmtc_id • pmtc_returntext • pmtc_returncode For more details, see section Hash Calculation.
8.	Details of all the errors	XML structure listing details of all the errors in the input message.

Response code values

Response code	Short description	Description
00	OK	Cancel received succesfully
20	Not found	Payment not found
30	Already settled	Payment already compensated and cannot be cancelled
31	Webstore and buyer cancellations mismatch	Cancel parameters from seller and payer do not match
90	Errors in input data	Errors in input data, specified in element <errors>
99	Failed	Payment cancellation failed, reason specified in <pmtc_returntext>

3.7 Retrieve Settlement Reports

Version 1.1.1

This interface enables webstore to retrieve reports of settlements.

3.7.1 Changes

Date	Version	Change
January 2013	1.1	English version created
September 2013	1.1.1	Added some instructions and notes.

3.7.2 Report Request

Webstore delivers the request parameters in a `<form>` using `POST` method as hidden input fields (`<input type=hidden>`) to address `https://www.maksuturva.fi/GetCompensationsByTimeInterval.pmt` (or `http://test1.maksuturva.fi/GetCompensationsByTimeInterval.pmt` in test environment)

#	Field	input name=	value=	Format	Minimum length	C/O
1.	Action code	`gc_action`	GET_COMPENSATIONS	AN50	4	C
2.	Message version	`gc_version`	0001	AN4	4	C
3.	Seller ID	`gc_sellerid`		AN15		C
4.	Begin date	`gc_begindate`	dd.MM.yyyy	AN10	10	C
5.	End date	`gc_enddate`	dd.MM.yyyy	AN10	10	C
6.	Hash algorithm	`gc_hashversion`	e.g. SHA-256	AN10		C
7.	Secret key generation	`gc_keygeneration`	Default: 001	N3		C
8.	Hash	`gc_hash`		AN128	32	C

The note AN*xx* means that the field contains a maximum of xx alphanumeric characters. N means numeric. C means that the field is compulsory and O means it is optional.

The interval between begin date and end date can be one month at maximum.

About testing

Currently, testing of this interface is possible only when Maksuturva manually updates some test payment status to settled. Also, testing must be done using webstore specific testing credentials. That is, sandbox testing is currently not available. In any case, you should contact us for more information about testing this interface since it always requires Maksuturva's participation.

3.7.3 Report Contents

The response message is an XML document with UTF-8 encoding.

The exact definition of the response is available as an XML Schema: https://www.maksuturva.fi/smtschema/GetCompensationsResponse.xsd

If the response is an error message, it will **NOT** include all compulsory fields, as they are not available in case of errors. The field resultCode is always available. Other fields may be expected only if `resultCode` has the value 00.

3.7.3.1 Logical Explanations of The Response Elements

Maksuturva can settle payments to the webstore in following ways:

- separately one by one using webstore's original reference number (superior for accounting purposes)
- in bundles containing several payments and usually with a fixed reference number. Bundles are settled once a day, week or month.

In either case, the XML report contains payments as bundles. If the payments were settled one by one, each bundle in the XML report contains only one payment/order.

The report has the following elements for each settlement bundle:

- bundle code
- the settlement date of the bundle
- the reference number of the bundle (the actual reference seen on the bank account of the recipient)
- the gross amount of all orders included in the bundle. This is the value originally expected by the webstore.
- the actual settled net amount, which is: gross amount – refunds – Maksuturva's commissions
- Maksuturva's commission sum
- the amount refunded back to payers

The report has the following elements for each order / payment:

- order id from the webstore (pmt_orderid)
- the original reference number for the order, provided by the webstore (pmt_reference)
- the unique id originally provided by the webstore (pmt_id)
- the gross amount of the order originally expected by the webstore (pmt_amount + pmt_sellercosts)
- the actual settled net amount, which is: gross amount – refunds – Maksuturva's commissions
- Maksuturva's commission sum
- the amount refunded back to payer

3.7.3.2 Report hash

The hash for checking the integrity of the XML report is calculated from the following fields:

- version
- timestamp
- sellerId
- resultCode
- hashVersion
- keyGeneration
- *secret key (which is not included in the XML report itself)*

For further details, see section Hash Calculation.

3.7.3.3 The XML Response Document

XML contents are best described through an example

```
<?xml version="1.0" encoding="UTF-8"?>
<getCompensationsResponse>
  <version>0001</version>
  <timestamp>2010-05-30T09:30:10+02:00</timestamp>
  <sellerId>ABCD1234</sellerId>
  <resultCode>00</resultCode>
  <resultText>OK</resultText>
  <hashVersion>SHA-256</hashVersion>
  <keyGeneration>001</keyGeneration>
  <hash>e3b0c44298fc1c149afbf4c8996fb92427ae41e4649b934ca495991b7852b855</hash>
  <compensations>
    <compensation>
      <compensationCode>
        contains the compensation code, IF this is an actual bundle (compensationType = BUNDLE),
and not
        a compensation of a single payment.
      </compensationCode>
      <compensationType>
        SINGLE = this “bundle” is a compensation of a single order, BUNDLE = many orders are
included in
        this bundle.
      </compensationType>
      <compensationDate>2010-05-30T00:00:00+02:00</compensationDate>
      <reference>12345123451234512345</reference>
      <grossAmount>
        the gross amount of all orders included in the bundle. This is the value originally
expected by
        the web store
      </grossAmount>
      <netAmount>the actual compensated amount </netAmount >
      <refundedAmount>the actual amount refunded to payers </refundedAmount>
      <commission>commission sum for Maksuturva</commission>
      <orders>
        ... if this is not a bundle, there will be just one order below...
        <order>
          <bundleCode>
            optional field. Included, if this order is part of a bundle compensation
          </bundleCode>
          <orderNumber> order number from the web store (pmt_orderid)</orderNumber>
          <originalReference>
            the original reference number for the order, provided by the web store
            (pmt_reference)
          </originalReference>
          <paymentId>
            the unique id originally provided by the web store (pmt_id)
          </paymentId>
          <sellerGrossAmount>
```

```
            the gross amount of the order originally expected by the web store
            (pmt_amount + pmt_sellercosts)
          </sellerGrossAmount>
          <sellerNetAmount>
            the actual compensated net amount, which is:
            gross amount – refunds – Maksuturva's commissions
          </sellerNetAmount>
          <refundedAmount>
            the amount refunded back to payer
          </refundedAmount>
          <commission>
            Maksuturva's commission sum
          </commission>
          <buyerPaymentDatetime>2010-05-30T09:30:10+02:00</buyerPaymentDatetime>
        </order>
      </orders>
    </compensation>
    <compensation>
      another compensation...
    </compensation>
  </compensations>
</getCompensationsResponse>
```

3.8 Merchant Subscription (for Webstore software providers)

Version 1.1

Please notice, that this service is intended to be used by webstore software providers that provide their hosting services for multiple webstores. This service enables webstore software providers to offer webstores seamless and easy integration to Maksuturva as their Payment Service Provider. In other words, a single webstore does not gain anything from integrating this service. Furthermore, this service requires use of a webstore software provider ID which is different kind of credentials than webstore ID used for example in Payments API.

Webstore software provider can send information about the webstore using this interface for faster and simpler webstore subscription and deployment procedure at Maksuturva. Webstore fills in the missing information and makes his choices regarding Maksuturva services and finally signs the subscription using Internet banking credentials (TUPAS) or orders paper contracts by mail for signing.

The response message indicates following result scenarios:

- Created a new customer and a new payment service
- Added a new payment service for existing customer
- Payment service creation failed. Detailed error reason and description are included in the response.

3.8.1 Subscription Request

Webstore software delivers information about the webstore, the company running the webstore and service parameters in a `<form>` using `POST` method as hidden input fields (`<input type=hidden>`) to address `https://www.maksuturva.fi/MerchantSubscription.pmt` (or `http://test1.maksuturva.fi/MerchantSubscription.pmt` in test environment).

#	Field	input name=	value=	Format	Min length	C/O
1.	Interface version	srv_version	0002	AN4	4	C
2.	Webstore software provider's account for subscribing for new Maksuturva services	srv_webstoreserviceid		AN15	1	C
3.	Finnish business identification code of the company running the webstore	srv_businessid		AN15	9	O
4.	Name of the company	srv_businessname		AN80	1	O
5.	Marketing name of the company	srv_marketingname		AN80	1	O
6.	WWW address of the company (not the webstore!)	srv_businesswww		AN200	4	O
7.	E-mail of the company	srv_businessemail		AN80	4	O
8.	Phone number of the company	srv_businessphone		AN40	1	O
9.	Fax number of the company	srv_businessfax		AN40	1	O
10.	Default bank account of the webstore (IBAN)	srv_webstoreiban		AN30	18	O
11.	Name of the webstore	srv_webstorename		AN80	1	O
12.	WWW address of the webstore	srv_webstorewww		AN200	4	C
13.	Webstore customer service contact information	srv_webstorecustomerservice		AN100	1	O
14.	Street address of the company	srv_businessaddress		AN100	5	O
15.	P.O.box of the company	srv_businesspobox		AN10	4	O
16.	Postal code of the company	srv_businesspostalcode		AN5	5	O
17.	City of the company	srv_businesscity		AN40	1	O
18.	Country (code) of the company	srv_businesscountrycode		AN2	2	O
19.	Billing address of the company	srv_billingaddress		AN100	5	O
20.	Billing P.O.box of the company	srv_billingpobox		AN10	4	O
21.	Billing postal code of the company	srv_billingpostalcode		AN5	5	O
22.	Billing city of the company	srv_billingcity		AN40	1	O
23.	Billing country (code) of the company	srv_billingcountrycode		AN2	2	O
24.	Street address of the webstore	srv_webstoreaddress		AN100	5	O
25.	P.O.box of the webstore	srv_webstorepobox		AN10	4	O
26.	Postal code of the webstore	srv_webstorepostalcode		AN5	5	O
27.	City of the webstore	srv_webstorecity		AN40	1	O
28.	Country (code) of the webstore	srv_webstorecountrycode		AN2	2	O
29.	Name of the company's contact person	srv_contactpersonname		AN80	1	O
30.	E-mail of the company's contact person	srv_contactpersonemail		AN80	4	O
31.	Phone number of the company's contact person	srv_contactpersonphone		AN40	1	O

32.	Mobile phone number of the company's contact person	srv_contactpersonmobile		AN40	1	O
33.	Fax number of the company's contact person	srv_contactpersonfax		AN40	1	O
34.	Name of the company's billing contact person	srv_billingpersonname		AN80	1	O
35.	E-mail of the company's billing contact person	srv_billingpersonemail		AN80	4	O
36.	Phone number of the company's billing contact person	srv_billingpersonphone		AN40	1	O
37.	Mobile phone number of the company's billing contact person	srv_billingpersonmobile		AN40	1	O
38.	Fax number of the company's billing contact person	srv_billingpersonfax		AN40	1	O
39.	Name of the company's technical contact person	srv_webstorepersonname		AN80	1	O
40.	E-mail of the company's technical contact person	srv_webstorepersonemail		AN80	4	O
41.	Phone number of the company's technical contact person	srv_webstorepersonphone		AN40	1	O
42.	Mobile phone number of the company's technical contact person	srv_webstorepersonmobile		AN40	1	O
43.	Fax number of the company's technical contact person	srv_webstorepersonfax		AN40	1	O
44.	Payment methods for the webstore	srv_paymentmethodinfo		AN200	1	O
45.	Delivery methods for the webstore	srv_deliverymethodinfo		AN200	1	O
46.	Service begin date for the webstore's Maksuturva service	srv_servicebegindate	dd.mm.yyyy	AN10	10	O
47.	Campaign code	srv_campaigncode		AN10	5	O
48.	Additional information about the subscription	srv_additionalinformation		AN2000	1	O
49.	Desired response type	srv_resptype	POST	AN4	3	O
50.	Ok return url	srv_okreturn		AN200	11	C
51.	Error return url	srv_errorreturn		AN200	11	O
52.	Cancel return url	srv_cancelreturn		AN200	11	O
53.	Charset for calculating the hash	srv_charset	ISO-8859-1, ISO-8859-15 or UTF-8	AN15	5	O
54.	Hash algorithm	srv_hashversion		AN10	1	C
55.	Hash	srv_hash		AN128	32	C
56.	Secret key generation	srv_keygeneration	Default: 001	N3	1	C

The note AN*xx* means that the field contains a maximum of xx alphanumeric characters. N means numeric. C means that the field is compulsory and O means it is optional.

3.8.1.1 Request parameter descriptions

#	Field	Description
1.	Interface version	Interface version of this subscription message
2.	Webstore software provider's account for subscribing for new Maksuturva services	The user account for webstore software provider.
3.	Finnish business identification code of the company running the webstore	Finnish business identification code of the company running the webstore
4.	Name of the company	The official name of the company running the webstore
5.	Marketing name of the company	Marketing name of the company (for example used with postal packages)
6.	WWW address of the company (not the webstore!)	WWW address of the company (not the webstore!)
7.	E-mail of the company	E-mail of the company
8.	Phone number of the company	Phone number of the company
9.	Fax number of the company	Fax number of the company
10.	Default bank account of the webstore (IBAN)	Default bank account of the webstore (IBAN). This is the account that will receive compensations from Maksuturva Group Oy. Account number must be a Finnish bank account in IBAN form.
11.	Name of the webstore	Name of the webstore (will be shown to buyers in Maksuturva service)
12.	WWW address of the webstore	WWW address of the webstore (will be shown to buyers in Maksuturva service)
13.	Webstore customer service contact information	Webstore customer service contact information. This will be part of confirmation and other e-mails sent to buyers from Maksuturva service. This must be comprehensible by Finnish, Swedish and English speaking persons. Example: "info@verkkokauppa.fi, (09) 123 4567".
14.	Street address of the company	Street address of the company running the webstore
15.	P.O.box of the company	P.O.box of the company
16.	Postal code of the company	Postal code of the company
17.	City of the company	City of the company
18.	Country (code) of the company	Country (code) of the company. Based on ISO 3166-1 standard. Default: FI
19.	Billing street address of the company	Billing street address of the company running the webstore. Billing address information must be given, if it's different from company's generic address information described above.
20.	Billing P.O.box of the company	Billing P.O.box of the company
21.	Billing postal code of the company	Billing postal code of the company
22.	Billing city of the company	Billing city of the company
23.	Billing country of the company	Billing country of the company. Based on ISO 3166-1 standard. Default: FI
24.	Street address of the webstore	Street address of the webstore. Webstore's address information must be given, if it's different from company's default address.
25.	P.O.box of the webstore	P.O.box of the webstore
26.	Postal code of the webstore	Postal code of the webstore
27.	City of the webstore	City of the webstore

28.	Country of the webstore	Country of the webstore. Based on ISO 3166-1 standard. Default: FI
29.	Name of the company's contact person	Name of the company's contact person (used by Maksuturva Group Oy to contact the company).
30.	E-mail of the company's contact person	E-mail of the company's contact person
31.	Phone number of the company's contact person	Phone number of the company's contact person
32.	Mobile phone number of the company's contact person	Mobile phone number of the company's contact person
33.	Fax of the company's contact person	Fax of the company's contact person
34.	Name of the company's billing contact person	Name of the company's billing contact person (used by Maksuturva Group Oy to contact the company in billing issues).
35.	E-mail of the company's billing contact person	E-mail of the company's billing contact person
36.	Phone number of the company's billing contact person	Phone number of the company's billing contact person
37.	Mobile phone number of the company's billing contact person	Mobile phone number of the company's billing contact person
38.	Fax of the company's billing contact person	Fax of the company's billing contact person
39.	Name of the company's technical contact person	Name of the company's technical contact person (used by Maksuturva Group Oy to contact the company in technical issues).
40.	E-mail of the company's technical contact person	E-mail of the company's technical contact person
41.	Phone number of the company's technical contact person	Phone number of the company's technical contact person
42.	mobile phone number of the company's technical contact person	mobile phone number of the company's technical contact person
43.	Fax of the company's technical contact person	Fax of the company's technical contact person
44.	Payment methods for the webstore	Codes for payment methods that the webstore desires to use via Maksuturva service. Possible codes can be found in section Payment Method Codes. The first character of the field defines a separator, and may not be part of any payment method code. Recommended is semicolon (;). The first character must be a separator, even if the field data contains only one payment method code. If this field is not present, the service will be assigned all available payment methods.
45.	Delivery methods for the webstore	Codes for delivery methods that the webstore desires to use with Maksuturva service. Possible codes can be found in section Delivery Method Codes. The first character of the field defines a separator, and may not be part of any delivery method code. Recommended is semicolon (;). The first character must be a separator, even if the field data contains only one delivery method code. If this field is not present, the service will be assigned all available delivery methods.
46.	Service begin date for the webstore's Maksuturva service	Desired service begin date for the webstore's Maksuturva service. If this is not given, service will start immediately when the agreement has been signed and handled by Maksuturva Group Oy.

47.	Campaign code	NOT IN USE. Might affect service agreement details and/or the pricing.
48.	Additional information about the subscription	Free form field for additional information.
49.	Response type	Defines the format of response. Choices are: POST / XML. Only POST is supported currently. This means: the user's browser is redirected back to webstore software provider's site according to given OK, return and cancel URLs.
50.	OK return url	The URL, where the browser is redirected after a successful service subscription. Must include protocol (http/https).
51.	Error return url	The URL, where the browser is redirected after an erroneous service subscription. Must include protocol (http/https).
52.	Cancel return url	The URL, where the browser is redirected if the user cancels the service subscription. Must include protocol (http/https).
53.	Hash calculation character set	Defines, which character set has been used to calculate the hash. Choices are: ISO-8859-1, ISO-8859-15 and UTF-8, default is ISO-8859-1.
54.	Hash algorithm	Algorithm for calculating the hash. For more information, see "Maksuturva Interface Integration Guidelines" document.
55.	Hash	Hash calculated from predefined message fields and the webstore software provider's secret key. The following fields are used to calculate the hash: • srv_webstorewww For more details, see section Hash Calculation.
56.	Secret key generation	Generation of the secret key (first key is 001)

3.8.2 Subscription Response

When a new service has been successfully subscribed for, the following fields are sent in a `<form>` using `POST` method to OK return address (srv_okreturn):

#	Field	input name=	value=	Format	C/O
1.	Interface version	`srv_version`	0002	AN4	C
2.	Company's business identification code	`srv_businessid`		AN15	C
3.	Webstore WWW address	`srv_webstorewww`		AN200	C
4.	Technical user id for the webstore	`srv_interfaceuserid`		AN50	C
5.	Technical secret key for the webstore	`srv_interfacecredential`		AN1056	C
6.	User id for KauppiasExtranet	`srv_extranetuserid`		AN50	C
7.	Password for KauppiasExtranet	`srv_extranetcredential`		AN1056	C
8.	State code for this subcscription	`srv_state`		AN5	C
9.	Hash for response	`srv_hash`		AN128	C

If a service was not successfully subscribed for, the following fields are sent in a `<form>` using `POST` method to error (srv_errorreturn) or cancel return address (srv_cancelreturn), depending on the case:

#	Field	input name=	value=	Format	C/O
1.	Interface version	`srv_version`	0002	AN4	C
2.	Company's business identification code	`srv_businessid`		AN15	C
3.	Webstore WWW address	`srv_webstorewww`		AN200	C
10.	Error code for this subcscription	`srv_errorcode`		AN5	C
11.	Error description for this subcscription	`srv_errordescription`		AN1000	C

3.8.2.1 Response parameter descriptions

#	Field	Description
1.	Interface version	Interface version of subscription message.
2.	Company's business identification code	Business identification code of the company running the webstore
3.	Webstore WWW address	Webstore WWW address (where the new Maksuturva service will be used)
4.	Technical user id for the webstore	A user id given by Maksuturva Group Oy to the webstore, to be used with technical interfaces (for example, payment interface)
5.	Technical secret key for the webstore	A secret key given by Maksuturva Group Oy to the webstore, to be used in calculating hash values for technical interfaces (for example, payment interface). This should never be visible to users and never be posted as part of forms!
6.	User id for KauppiasExtranet	A user id given by Maksuturva Group Oy to the webstore, to be used when using the web-based KauppiasExtranet service.
7.	Password for KauppiasExtranet	A password given by Maksuturva Group Oy to the webstore, to be used when using the web-based KauppiasExtranet service.
8.	State code for this subcscription	State code defining the state of subscribing for a new Maksuturva service: 10 = asiakas ja palvelu on perustettu / kunden och tjänsten är grundade / the customer and the service have been founded 20 = palvelu on perustettu / tjänsten är grundad / the service has been founded 30 = aiemmin perustettu palvelu allekirjoitettiin / en tidigare grundad tjänst blev underskriven / a service founded earlier was signed
10.	Hash for response	Hash value calculated from certain form fields and the secret key of webstore service provider (given by Maksuturva). For more information, see "Maksuturva Interface Integration Guidelines" document. The following fields are used for the hash of this response message: • srv_businessid • srv_webstorewww • srv_interfaceuserid • srv_interfacecredential • srv_extranetuserid • srv_extranetcredential • srv_state
11.	Error code for this subcscription	Error code for this subcscription: 10 = Virheitä rajapinnassa välitetyissä tiedoissa / fel i gränssnittets uppgifter / errors in the interface data 20 = Verkkokaupalle on jo perustettu palvelu / nätbutiken har redan en tjänst / the web store already has a service 30 = Tekninen virhe / tekniskt fel / technical error 40 = Kauppias keskeytti palvelun käyttöönoton / näthandlaren avbröt processen / the vendor cancelled the process
12.	Error description for this subcscription	More specific error description for this subcscription. May for example include a list of erroneous fields.

3.9 Hash Calculation

Each message contains a hash that has been calculated from the fields required in the interface specific descriptions.

Algorithm name	Algorithm
SHA-512	512 -bittinen SHA-2
SHA-256	256 -bittinen SHA-2
SHA-1	160 -bittinen SHA-1
MD5	MD5

When calculating the hash the required fields are concatenated and each field is followed by the & character. The last field is the secret key provided by Suomen Maksuturva, followed by the & character. This is the character string used to calculate the hash. The hash algorithm field must contain the algorithm used as named in the table above.

If a field is optional and should be part of hash calculation, but it is not sent, then also the ampersand (&) for that field must be omitted from hash string.

The hash may be transferred in upper or lower case, the response hash is always upper case.

Example:

The hash should be calculated from the following fields (the example value used is in parenthesis):

- field1 (123)
- field2 (ABC)
- field3 (K)

The secret key is ”testkey” without the quotation marks. The hash is calculated from the following string:
`123&ABC&K&testkey&`

The default character set when calculating the hash is ISO-8859-1, but some other character sets are supported too. The character set used for hash calculation can be sent with the payment parameters as `pmt_charset`. Currently supported values are: ISO-8859-1, ISO-8859-15 and UTF-8.

In addition, another character set can be defined starting from payment interface version 0004. That parameter, `pmt_charsethttp` defines the character set used by the web store. This is important, because it defines how Maksuturva payment system will decode the parameters.

3.9.1 Tips for hash calculation

It is highly recommended to copy and paste e.g. the secret key through for example Notepad or some other plain text editor. It is common problem that the hash calculation fails simply because there are invisible whitespaces or line feeds / carriage returns in the value when it has been copied from rich text editors (e.g. MS Word) or email clients (e.g. MS Outlook).

At first, test your hash calculation with messages that have NO special characters, umlauts or other than US-ASCII character set, for that matter. That is, first try with an order without any special or control characters and without European national letters like ÄÖÅ. If hash mismatches with messages that contain any of the aforementioned characters, it is obvious there is something wrong with characters set (something else is used for calculation than told in the message):

- Hash calculation character encoding / `pmt_charset`:
    - This field tells the character set that has been used to calculate the hash value for input data. Currently supported values are: ISO-8859-1, ISO-8859-15 and UTF-8. Hash calculation is always done from binary data, which is not obvious in some programming languages. You must handle the transformation from character based data to binary data before hash calculation correctly. If it's not possible to define the character set for hash calculation function, you must find out which character set is used internally by the hash algorithm. For example character "Ä" have different hash values for UTF-8 and Latin-1 character sets.
- Character encoding of input data (and of webstore) / `pmt_charsethttp`:
    - This field tells the character encoding of the input data. The Maksuturva payment interface handles HTTP request parameters according to this character encoding. Practically this is the character set reported by the browser, when you're browsing the checkout pages in the webstore.

Please make sure that the string to be hashed does not contain two consecutive & chars (ampersands). Each field in hash string should be followed by exactly one ampersand. Empty or null fields are never put in hash string. The last character of the hash string should also be &.

Please check the parameter list again from the interface definition document. It is different from the list of parameters to be passed as all the parameters are not mandatory and some are not necessary to be "signed" by hash calculation.

3.10 Retrieve Maksuturva Part Payment payment plans

Webstores that offer Maksuturva Part Payment as a payment options has option to retrieve pricing information for marketing purposes to the webstore using this technical interface.

Important! This interface is meant to be called less frequently, e.g. when updating product sheet and price information. The pricing information in the response should be saved to the webstore.

The payment plans can be retrieved (using either GET or POST) from address `https://www.maksuturva.fi/GetMaksuturvaPartPaymentPaymentPlans.pmt` (or `http://test1.maksuturva.fi/GetMaksuturvaPartPaymentPaymentPlans.pmt` in the testing environment).

One cannot test this interface using sandbox test credentials. In other words, to be able to test this interface, the webstore must subscribe to personal test credentials. Also, Maksuturva Part Payment must be enabled as a payment method.

Request parameters

#	Field	input name=	value=	Format	Minimum length	C/O
1.	Seller id	`gpp_sellerid`		AN50	4	C
2.	The total amount of the order that the buyer is about to pay, including all the costs.	`gpp_amounttotal`	e.g. 573,10	AN17	4	C
3.	Language *This influences mostly error messages since the OK-response contains only numeric data.*	`request_locale`	fi, sv, en default: fi	A2	2	O

Response

The response (XML document, UTF-8) is returned as direct response to the HTTP GET/POST request. The contents are best described through an example.

Result codes

ResultCode	ResultText	Description
00	SUCCESS	OK
10	NO_PLANS_AVAILABLE	Usually because of too small total amount
99	ERROR	See below examples

Hint / Tip

Let's assume webstore wants to display "*from 31,00 € per month*" on the product sheet. This price information can be found from the first payment plan line of the longest payment plan. That is, start by locating the longest payment plan i.e. the `<PaymentPlan>` with the largest `<PaymentPlanLineCount>` value. Then locate the first `<PaymentPlanLine>` and pick the `<Total>` value from it. In the example below, the longest payment plan is 24 months (PaymentPlanLineCount=24). The value to pick is emphasized with blue color.

Request Example (GET):

```
https://www.maksuturva.fi/GetPaymentMethods.pmt?
gpp_sellerid=SELLERID&gpp_totalamount=573,10&request_locale=en
```

OK response example:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<GetMaksuturvaPartPaymentPaymentPlansResponse>
    <ResultCode>00</ResultCode>
    <ResultText>SUCCESS</ResultText>
    <SellerId>1234567890ABCDE</SellerId>
    <AmountTotal>573,10</AmountTotal>
    <PaymentPlan>
        <AnnualInterestPercentage>29,99</AnnualInterestPercentage>
        <InterestPercentage>15</InterestPercentage>
        <MonthlyFee>3,00</MonthlyFee>
        <TotalAmount>591,50</TotalAmount>
        <TotalCapital>573,10</TotalCapital>
        <TotalFee>9,00</TotalFee>
        <TotalInterest>9,40</TotalInterest>
        <PaymentPlanLineCount>3</PaymentPlanLineCount>
        <PaymentPlanLine>
            <Capital>195,00</Capital>
            <DueDate>2015-06-18</DueDate>
            <Fee>3,00</Fee>
            <InstallmentNumber>1</InstallmentNumber>
            <Interest>0,00</Interest>
            <InvoiceDate>2015-06-04</InvoiceDate>
            <Total>198,00</Total>
        </PaymentPlanLine>
        <PaymentPlanLine>
            <Capital>189,14</Capital>
            <DueDate>2015-07-18</DueDate>
            <Fee>3,00</Fee>
            <InstallmentNumber>2</InstallmentNumber>
            <Interest>5,86</Interest>
            <InvoiceDate>2015-07-04</InvoiceDate>
            <Total>198,00</Total>
        </PaymentPlanLine>
        <PaymentPlanLine>
            <Capital>188,96</Capital>
            <DueDate>2015-08-18</DueDate>
            <Fee>3,00</Fee>
            <InstallmentNumber>3</InstallmentNumber>
            <Interest>3,54</Interest>
            <InvoiceDate>2015-08-04</InvoiceDate>
            <Total>195,50</Total>
        </PaymentPlanLine>
    </PaymentPlan>
    <PaymentPlan>
        <AnnualInterestPercentage>31,04</AnnualInterestPercentage>
        <InterestPercentage>15</InterestPercentage>
        <MonthlyFee>3,00</MonthlyFee>
        <TotalAmount>611,96</TotalAmount>
```

```
    <TotalCapital>573,10</TotalCapital>
    <TotalFee>18,00</TotalFee>
    <TotalInterest>20,86</TotalInterest>
    <PaymentPlanLineCount>6</PaymentPlanLineCount>
    <PaymentPlanLine>
        <Capital>100,00</Capital>
        <DueDate>2015-06-18</DueDate>
        <Fee>3,00</Fee>
        <InstallmentNumber>1</InstallmentNumber>
        <Interest>0,00</Interest>
        <InvoiceDate>2015-06-04</InvoiceDate>
        <Total>103,00</Total>
    </PaymentPlanLine>
    <PaymentPlanLine>
        ...
    </PaymentPlanLine>
    <PaymentPlanLine>
        ...
    </PaymentPlanLine>
    ...
</PaymentPlan>
<PaymentPlan>
    ...
</PaymentPlan>
<PaymentPlan>
    ...
</PaymentPlan>
...
<PaymentPlan>
    <AnnualInterestPercentage>29,98</AnnualInterestPercentage>
    <InterestPercentage>15</InterestPercentage>
    <MonthlyFee>3,00</MonthlyFee>
    <TotalAmount>733,96</TotalAmount>
    <TotalCapital>573,10</TotalCapital>
    <TotalFee>72,00</TotalFee>
    <TotalInterest>88,86</TotalInterest>
    <PaymentPlanLineCount>24</PaymentPlanLineCount>
    <PaymentPlanLine>
        <Capital>28,00</Capital>
        <DueDate>2015-06-18</DueDate>
        <Fee>3,00</Fee>
        <InstallmentNumber>1</InstallmentNumber>
        <Interest>0,00</Interest>
        <InvoiceDate>2015-06-04</InvoiceDate>
        <Total>31,00</Total>
    </PaymentPlanLine>
    <PaymentPlanLine>
        <Capital>21,02</Capital>
        <DueDate>2015-07-18</DueDate>
        <Fee>3,00</Fee>
        <InstallmentNumber>2</InstallmentNumber>
        <Interest>6,98</Interest>
        <InvoiceDate>2015-07-04</InvoiceDate>
```

```
            <Total>31,00</Total>
        </PaymentPlanLine>
        <PaymentPlanLine>
            ...
        </PaymentPlanLine>
        <PaymentPlanLine>
            ...
        </PaymentPlanLine>
        ...
    </PaymentPlan>
</GetMaksuturvaPartPaymentPaymentPlansResponse>
```

NO_PLANS_AVAILABLE response example

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<GetMaksuturvaPartPaymentPaymentPlansResponse>
    <ResultCode>10</ResultCode>
    <ResultText>NO_PLANS_AVAILABLE</ResultText>
    <SellerId>1234567890ABCDE</SellerId>
    <AmountTotal>1,00</AmountTotal>
    <Error name="gpp_amounttotal" type="field">The credit provider did not return any payment plans
for the given total amount.</Error>
</GetMaksuturvaPartPaymentPaymentPlansResponse>
```

ERROR response examples:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<GetMaksuturvaPartPaymentPaymentPlansResponse>
    <ResultCode>99</ResultCode>
    <ResultText>ERROR</ResultText>
    <SellerId>1234567890ABCD</SellerId>
    <AmountTotal>573,10</AmountTotal>
    <Error name="gpp_sellerid" type="field">Invalid request parameter gpp_sellerid value
"1234567890ABCD"</Error>
</GetMaksuturvaPartPaymentPaymentPlansResponse>
```

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<GetMaksuturvaPartPaymentPaymentPlansResponse>
    <ResultCode>99</ResultCode>
    <ResultText>ERROR</ResultText>
    <SellerId>1234567890ABCDE</SellerId>
    <AmountTotal>aaa</AmountTotal>
    <Error name="gpp_amounttotal" type="field">Invalid request parameter gpp_amounttotal value
"aaa"</Error>
</GetMaksuturvaPartPaymentPaymentPlansResponse>
```

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<GetMaksuturvaPartPaymentPaymentPlansResponse>
    <ResultCode>99</ResultCode>
    <ResultText>ERROR</ResultText>
    <SellerId>1234567890ABCDE</SellerId>
```

```
    <AmountTotal>10000,01</AmountTotal>
    <Error type="general">Response from the credit provider: The purchase amount exeeds the maximum
allowed limit.</Error>
</GetMaksuturvaPartPaymentPaymentPlansResponse>
```

4. Testing

Testing is free and, depending on the case, you will need general and/or personal test credentials to access the test environment. In testing environment, real money is never handled nor real deliveries tracked.

- **General test credentials** (”sandbox testing”) are meant for verifying the technical interface messaging between the web store and our payment service. This means message content validation and security details verification.
- **Personal test credentials** are used to test the buyer’s payment process and to oversee and manage the web store’s orders. In testing environment, the payment occurs for example in online banking test service, and the webstore has the opportunity to view and manage the orders in the Extranet web application ("KauppiasExtranet").

While testing the service with personal credentials in test or production environment please note that payment id (pmt_id) is unique for each web store account (pmt_sellerid). Read more: existingPayment (Payment id is invalid)

4.1 Generic test credentials (Sandbox)

The most simple way to verify correct hash calculation is to use general test credentials, or int other words sandbox testing.

Yleisen testitunnuksen tiedot

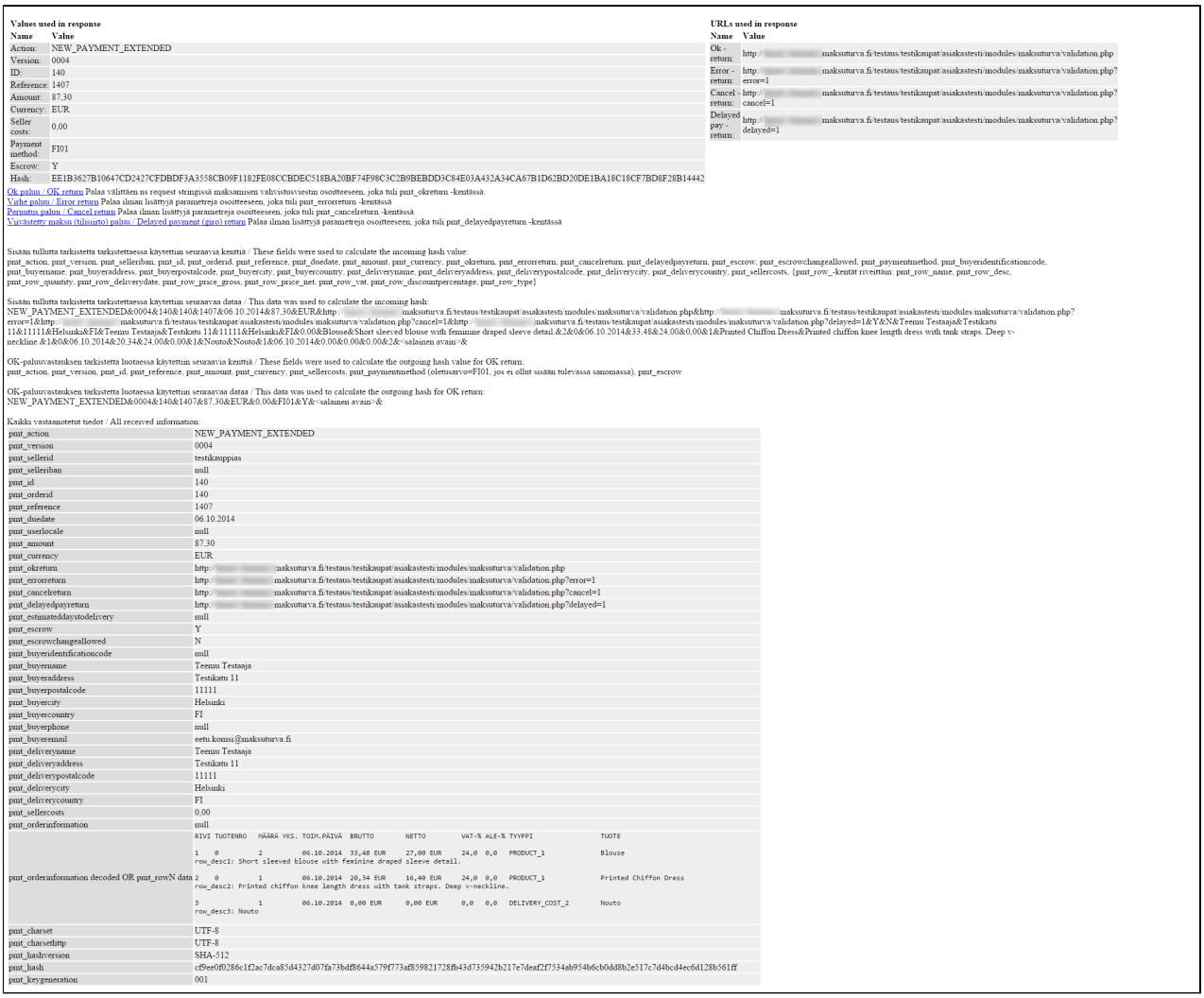
Seller ID	”testikauppias”
Secret key	”11223344556677889900”
Secret key generation	"1"

When these are used, the service operates in a separate test mode where the orders placed are never saved to database, and for example instead of user actually paying, the service switches to a discrete diagnostics test page. Our service verifies the information content relayed by the web store, and it either reports errors or constructs a reply page in accordance with the interface, or in some cases an XML document.

Generic test credentials are applicable in both production (`https://www.maksuturva.fi`) and testing addresses (`http://test1.maksuturva.fi`). Of course we certainly recommend using test addresses for generic testing also.

An example

Here is an example of the diagnostics test page when Payment API has been called with generic test credentials:



Values used in response

Name	Value
Action:	NEW_PAYMENT_EXTENDED
Version:	0004
ID:	140
Reference:	1407
Amount:	87.30
Currency:	EUR
Seller costs:	0.00
Payment method:	FI01
Escrow:	Y
Hash:	EE1B3627B10647CD2427CFDBDF3A3558CB09F1182FE08CCBDEC518BA20BF74F98C3C2B9BEBDD3C84E03A432A34CA67B1D62BD20DE1BA18C18CF7BD8F28B14442

URLs used in response

Name	Value
Ok - return:	http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php
Error - return:	http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?error=1
Cancel - return:	http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?cancel=1
Delayed pay - return:	http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?delayed=1

Ok paluu / OK return Palaa välittäen ns request stringissä maksamisen vahvistusviestin osoitteeseen, joka tuli pmt_okreturn -kentässä.
Virhe paluu / Error return Palaa ilman lisättyjä parametreja osoitteeseen, joka tuli pmt_errorreturn -kentässä
Peruttu paluu / Cancel return Palaa ilman lisättyjä parametreja osoitteeseen, joka tuli pmt_cancelreturn -kentässä
Viivästetty maksu (tilisiirto) paluu / Delayed payment (giro) return Palaa ilman lisättyjä parametreja osoitteeseen, joka tuli pmt_delayedpayreturn -kentässä

Sisään tullutta tarkistetta tarkistettaessa käytettiin seuraavia kenttiä / These fields were used to calculate the incoming hash value:
pmt_action, pmt_version, pmt_selleriban, pmt_id, pmt_orderid, pmt_reference, pmt_duedate, pmt_amount, pmt_currency, pmt_okreturn, pmt_errorreturn, pmt_cancelreturn, pmt_delayedpayreturn, pmt_escrow, pmt_escrowchangeallowed, pmt_paymentmethod, pmt_buyeridentificationcode, pmt_buyername, pmt_buyeraddress, pmt_buyerpostalcode, pmt_buyercity, pmt_buyercountry, pmt_deliveryname, pmt_deliveryaddress, pmt_deliverypostalcode, pmt_deliverycity, pmt_deliverycountry, pmt_sellercosts, {pmt_row_-kentät riveittäin: pmt_row_name, pmt_row_desc, pmt_row_quantity, pmt_row_deliverydate, pmt_row_price_gross, pmt_row_price_net, pmt_row_vat, pmt_row_discountpercentage, pmt_row_type}

Sisään tullutta tarkistetta tarkistettaessa käytettiin seuraavaa dataa / This data was used to calculate the incoming hash:
NEW_PAYMENT_EXTENDED&0004&140&140&1407&06.10.2014&87,30&EUR&http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php&http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?error=1&http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?cancel=1&http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?delayed=1&Y&N&Teemu Testaaja&Testikatu 11&11111&Helsinki&FI&Teemu Testaaja&Testikatu 11&11111&Helsinki&FI&0,00&Blouse&Short sleeved blouse with feminine draped sleeve detail.&2&0&06.10.2014&33,48&24,00&0,00&1&Printed Chiffon Dress&Printed chiffon knee length dress with tank straps. Deep v-neckline.&1&0&06.10.2014&20,34&24,00&0,00&1&Nouto&Nouto&1&06.10.2014&0,00&0,00&0,00&2&<salainen avain>&

OK-paluuvastauksen tarkistetta luotaessa käytettiin seuraavia kenttiä / These fields were used to calculate the outgoing hash value for OK return:
pmt_action, pmt_version, pmt_id, pmt_reference, pmt_amount, pmt_currency, pmt_sellercosts, pmt_paymentmethod (oletusarvo=FI01, jos ei ollut sisään tulevassa sanomassa), pmt_escrow

OK-paluuvastauksen tarkistetta luotaessa käytettiin seuraavaa dataa / This data was used to calculate the outgoing hash for OK return:
NEW_PAYMENT_EXTENDED&0004&140&1407&87,30&EUR&0,00&FI01&Y&<salainen avain>&

Kaikki vastaanotetut tiedot / All received information:

pmt_action	NEW_PAYMENT_EXTENDED
pmt_version	0004
pmt_sellerid	testikauppias
pmt_selleriban	null
pmt_id	140
pmt_orderid	140
pmt_reference	1407
pmt_duedate	06.10.2014
pmt_userlocale	null
pmt_amount	87.30
pmt_currency	EUR
pmt_okreturn	http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php
pmt_errorreturn	http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?error=1
pmt_cancelreturn	http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?cancel=1
pmt_delayedpayreturn	http://[redacted].maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?delayed=1
pmt_estimateddaystodelivery	null
pmt_escrow	Y
pmt_escrowchangeallowed	N
pmt_buyeridentificationcode	null
pmt_buyername	Teemu Testaaja
pmt_buyeraddress	Testikatu 11
pmt_buyerpostalcode	11111
pmt_buyercity	Helsinki
pmt_buyercountry	FI
pmt_buyerphone	null
pmt_buyeremail	eetu.konsi@maksuturva.fi
pmt_deliveryname	Teemu Testaaja
pmt_deliveryaddress	Testikatu 11
pmt_deliverypostalcode	11111
pmt_deliverycity	Helsinki
pmt_deliverycountry	FI
pmt_sellercosts	0.00
pmt_orderinformation	null
pmt_orderinformation decoded OR pmt_rowN data	RIVI TUOTENRO MÄÄRÄ YKS. TOIM.PÄIVÄ BRUTTO NETTO VAT-% ALE-% TYYPPI TUOTE 1 0 2 06.10.2014 33,48 EUR 27,00 EUR 24,0 0,0 PRODUCT_1 Blouse row_desc1: Short sleeved blouse with feminine draped sleeve detail. 2 0 1 06.10.2014 20,34 EUR 16,40 EUR 24,0 0,0 PRODUCT_1 Printed Chiffon Dress row_desc2: Printed chiffon knee length dress with tank straps. Deep v-neckline. 3 1 06.10.2014 0,00 EUR 0,00 EUR 0,0 0,0 DELIVERY_COST_2 Nouto row_desc3: Nouto
pmt_charset	UTF-8
pmt_charsethttp	UTF-8
pmt_hashversion	SHA-512
pmt_hash	cf9ee0f0286c1f2ac7dca85d4327d07fa73bdf8644a579f773aff85982172 8fb43d735942b217e7deaf2f7534ab954b6cb0dd8b2e517c7d4bcd4ec6d128b561ff
pmt_keygeneration	001

If the message was erroneus, that is told in the beginning of the diagnostics page.

For example when the hash was invalid:

Sent message had errors in following fields:

- Errors in Payment message
- Hash value is invalid

4.1.1 Sandbox testing requests of service intercafes

New Payment testing

Check that the field values correlate with the API descriptions and for example that the payment reference (pmt_reference) has been calculated or created correctly. The diagnostics test page contains links for simulating ok, cancel and error returns to webstore.

Payment Status Query testing

In case of generic test credentials, the service returns a random response code.

Delivery Information Management testing (only applicable for Satisfaction Guarantee payment services)

Check that the field values correlate with the API descriptions and for example that the delivery info parameters do not contain invalid data. The service cannot validate delivery info (i.e. tracking codes) perfectly but for the most part it performs well with Finnish major logistics companies tracking codes. See currently supported delivery method codes.

Payment refunds and cancellations testing (only applicable for Satisfaction Guarantee payment services)

In case of generic test credentials, the service returns a random response code.

4.2 Personal test credentials

Testing with personal credentials

Personal test credentials enable webstore to test the buyer's payment process and e.g. Web Buyer's Services and KauppiasExtranet. Test environment never handles real cash! All the payments are done in the test environments of each supported bank, card payment handler or credit provider etc.

Personal test credentials are applicable only in Maksuturva's test environment addresses that begin with `http://test1.maksuturva.fi`. For example, for new payments use `http://test1.maksuturva.fi/NewPaymentExtended.pmt` and for payment status queries use `http://test1.maksuturva.fi/PaymentStatusQuery.pmt`.

Obtaining personal credentials from Maksuturva

Personal test credentials for the test environment are conferred without any separate agreement. Ordering the personal credentials is especially recommended if you are installing our service with a payment module as part of a web store based on open source software, or if you are starting up an independent integration job.

You can use the account number FI27 1234 5612 3456 73 when ordering the test service. Signing the order (by authentication in online banking service) is not necessary in testing environment. Please inform us when you have completed the test order and have saved all relevant credentials, so that we can activate your test environment credentials.

Webstore can order test service themselves using the subscription form:

Test environment:
Maksuturva Basic, Maksuturva Gold, eMaksut and eMaksut Laaja: http://test1.maksuturva.fi/tilaapalvelu

Production environment:
Maksuturva Basic, Maksuturva Gold, eMaksut and eMaksut Laaja: https://www.maksuturva.fi/tilaapalvelu

Production vs. test environment

Please note that production and test environments are completely separate and the credentials only work in the environment they were obtained for.

When webstore wants to use production environment and real cash, the services are found from SSL protected production address `https://www.maksuturva.fi`. That is, for example new payment requests are sent to address `https://www.maksuturva.fi/NewPaymentExtended.pmt` and payment status queries to address `https://www.maksuturva.fi/PaymentStatusQuery.pmt`.

Also notice that test environment does not use SSL (HTTP vs HTTPS).

The easiest way to test payment transactions is through the online banking services (see banks' test credentials, do not try to use your own real online banking credentials).

Card payments require you to use real card details, but your card will not be charged. An authorization hold of test payment's amount is put to the card though and will be released later. The exact time how

long the amount will stay held away from the card's available funds depend on the card issuing bank, usually a few business days.

Paying by Invoice etc. is instructed separately.

While testing the payment status query please note the differences between status queries in different usage environments. Read more: 3.4.4. Payment Status Query in different environments.

4.2.1 Internet banks' test credentials

Aktia
Käyttäjätunnus: 12345678
Salasana: 123456
Turvaluku: 1234
Turvaluku 2: 1234

Danske Bank
Must use your own customer credentials. No real cash is withdrawn from your bank account.

Handelsbanken
Käyttäjätunnus: 11111111
Salasana: 123456
Turvaluku: 123456
Turvaluku 2: 123456

LähiTapiola
Käyttäjätunnus: 12345678
Salasana: any numbers
Tunnusluku: any four numbers
Tunnusluku 2: any four numbers

Nordea
Tunnus: 123456
Salasana: 1234
Vahvistustunnus: any four numbers

OP / Osuuspankki
Käyttäjätunnus: 123456
Salasana: 7890
Avainluku: any four numbers

POP Bank
Käyttäjätunnus: 11111111
Salasana: 123456
Turvaluku: 123456
Turvaluku 2: 123456

S-Bank
Käyttäjätunnus: 12345678
Salasana: any numbers
Tunnusluku: any four numbers
Tunnusluku 2: any four numbers

Savings bank
Käyttäjätunnus: 11111111
Salasana: 123456
Turvaluku: 123456
Turvaluku 2: 123456

Ålandsbanken

Käyttäjätunnus: 12345678
Salasana: any numbers
Tunnusluku: any four numbers
Tunnusluku 2: any four numbers

4.2.2 Credit providers' test credentials

Maksuturva Invoice and Maksuturva Part Payment (buyer is a PRIVATE PERSON)

Social Security Number	Behaviour in test environment
250549-9980	Payment succeeds
160264-999N	Payment fails (poor credit history)
300890-9290 tai esim. testaajan oma hetu	Payment succeeds, but requires the buyers to identify themselves using TUPAS. In this simulated situation, this is because the home address from Finnish population register ("Väestörekisteri" or VRK) does not match the billing and delivery address of the order. To test this, the webstore must have agreed with Maksuturva that "optional TUPAS" has been enabled for the webstore's payment service agreement. Optional TUPAS enables buyers to pay by invoice without identifying themselves using TUPAS when all three addresses match (billing, delivery and VRK).

In case of Maksuturva Invoice and Maksuturva Part Payment the credit provider's **test environment does not** actually **compare the billing address** with the address found from Finnish population register. Instead, they are always considered equal.

SveaWebPay Invoice and SveaWebPay Part Payment (buyer is a PRIVATE PERSON)

Social Security Number	Billing address	Behaviour in test environment
160264-999N	Atomitie 2 C 00370 Helsinki	Maksaminen onnistuu
111248-999C 261295-9985 170172-998J or any other real SSN	anything	Maksaminen ei onnistu *"SveaWebPay-palvelusta saadun vastauksen perusteella Laskulla maksamista ei valitettavasti voida hyväksyä.* *Voit halutessasi valita toisen maksutavan."*

SveaWebPay Invoice and SveaWebPay Part Payment the test environment does compare delivery address and with the Finnish population register address returned by SveaWebPay. If these do not match, payment service displays a clear message telling about this. It also displays the address that was expected as the delivery address.

SveaWebPay Invoice (buyer is a CORPORATE)

Finnish Business Identity code	Billing address	Behaviour in test environment
9999999-2	Testitie 1	Maksaminen onnistuu

	00370 Helsinki	
8888888-3 7777777-4 6666666-5	Testitie 1 00370 Helsinki	Maksaminen ei onnistu

5. Examples

This section provides some **examples** of the **requests** and **responses**. Also, some sections below contain **code examples** (e.g. PHP) that are partly **pseudocode**.

Please notice that these **examples are NOT functional** but are only showing the structure and the nature of the message contents.

5.1 Retrieve Available Payment Methods (per order)

Request example (HTTP GET):

```
http://test1.maksuturva.fi/GetPaymentMethods.pmt?
sellerid=SELLERID&request_locale=fi&totalamount=174,90
https://www.maksuturva.fi/GetPaymentMethods.pmt?
sellerid=SELLERID&request_locale=fi&totalamount=174,90
```

Response example (HTTP RESPONSE):

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<paymentmethods>
     <paymentmethod>
          <code>FI01</code>
          <displayname>Nordea E-maksu</displayname>
     </paymentmethod>
     <paymentmethod>
          <code>FI02</code>
          <displayname>Danske Bank Verkkomaksu</displayname>
     </paymentmethod>
     <paymentmethod>
          <code>FI03</code>
          <displayname>Aktia verkkomaksu</displayname>
     </paymentmethod>
     <paymentmethod>
          <code>FI04</code>
          <displayname>POP Pankin verkkomaksu</displayname>
     </paymentmethod>
     <paymentmethod>
          <code>FI05</code>
          <displayname>Tapiola Pankki Verkkomaksu</displayname>
     </paymentmethod>
     <paymentmethod>
          <code>FI06</code>
          <displayname>Osuuspankki Verkkomaksu</displayname>
     </paymentmethod>
     <paymentmethod>
          <code>FI07</code>
          <displayname>Ålandsbanken E-maksu</displayname>
     </paymentmethod>
     <paymentmethod>
          <code>FI08</code>
          <displayname>Säästöpankin verkkomaksu</displayname>
     </paymentmethod>
     <paymentmethod>
          <code>FI09</code>
          <displayname>Handelsbanken Verkkomaksu</displayname>
     </paymentmethod>
     <paymentmethod>
          <code>FI10</code>
```

```
        <displayname>S-pankki Verkkomaksu</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>FI50</code>
        <displayname>Korttimaksu (Visa, Visa Electron, MasterCard)</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>FI60</code>
        <displayname>Maksuturva Lasku</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>FI61</code>
        <displayname>Maksuturva Erämaksu</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>FI70</code>
        <displayname>SveaWebPay Lasku</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>FI71</code>
        <displayname>SveaWebPay Osamaksu</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>FI72</code>
        <displayname>Yrityslasku</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>USPP</code>
        <displayname>PayPal</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>RBIN</code>
        <displayname>Resurs Bank Lasku</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>RBPP</code>
        <displayname>Resurs Bank Osamaksu</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>RBCD</code>
        <displayname>Resurs Bank Kortti</displayname>
    </paymentmethod>
    <paymentmethod>
        <code>RBRC</code>
        <displayname>Resurs Bank Uusi kortti</displayname>
    </paymentmethod>
</paymentmethods>
```

5.2 Retrieve Dynamic Image Material

Examples can be found from API description: Retrieving Dynamic Image Material

5.3 Payment

Request examples (HTTP POST)

Example 1:

- Satisfaction Guarantee payment service (e.g. Maksuturva Gold)
- Billing and Delivery address mismatch
- Webstore return addresses do not contain querystring
- Buyer will choose payment method in Maksuturva's payment method choosing page

```
<form method="post" action="http://test1.maksuturva.fi/NewPaymentExtended.pmt">
    <input type="submit" value="Pay">

    <input type="hidden" name="pmt_action"                    value="NEW_PAYMENT_EXTENDED" />
    <input type="hidden" name="pmt_version"                   value="0004" />
    <input type="hidden" name="pmt_sellerid"                  value="ABC123DE" />
    <input type="hidden" name="pmt_id"                        value="1998524_1" />
    <input type="hidden" name="pmt_orderid"                   value="1998524" />
    <input type="hidden" name="pmt_reference"                 value="19985242" />
    <input type="hidden" name="pmt_duedate"                   value="15.10.2014" />
    <input type="hidden" name="pmt_userlocale"                value="fi_FI" />
    <input type="hidden" name="pmt_amount"                    value="568,10" />
    <input type="hidden" name="pmt_currency"                  value="EUR" />
    <input type="hidden" name="pmt_okreturn"                  value="http://www.mytestshop.fi/pay/
return/Success.do" />
    <input type="hidden" name="pmt_errorreturn"               value="http://www.mytestshop.fi/pay/
return/Error.do" />
    <input type="hidden" name="pmt_cancelreturn"              value="http://www.mytestshop.fi/pay/
return/Cancel.do" />
    <input type="hidden" name="pmt_delayedpayreturn"          value="http://www.mytestshop.fi/pay/
return/Cancel.do" />
    <input type="hidden" name="pmt_escrow"                    value="Y" />  <!--
Tyytyväisyystakuu-palvelu, escrow=Y -->
    <input type="hidden" name="pmt_escrowchangeallowed"       value="N" />
    <input type="hidden" name="pmt_buyername"                 value="Teemu Testaaja" />
    <input type="hidden" name="pmt_buyeraddress"              value="Ruoholahdenkatu 23" />
    <input type="hidden" name="pmt_buyerpostalcode"           value="00180" />
    <input type="hidden" name="pmt_buyercity"                 value="Helsinki" />
    <input type="hidden" name="pmt_buyercountry"              value="FI" />
    <input type="hidden" name="pmt_buyerphone"                value="0401234567" />
    <input type="hidden" name="pmt_buyeremail"
value="teemu.testaaja@maksuturva.fi" />
    <input type="hidden" name="pmt_deliveryname"              value="Teemu Testaaja" />
    <input type="hidden" name="pmt_deliveryaddress"           value="Kotikatu 1" />
    <input type="hidden" name="pmt_deliverypostalcode"        value="00330" />
    <input type="hidden" name="pmt_deliverycity"              value="Helsinki" />
    <input type="hidden" name="pmt_deliverycountry"           value="FI" />
    <input type="hidden" name="pmt_sellercosts"               value="5,00" />
    <input type="hidden" name="pmt_rows"                      value="4" />
    <input type="hidden" name="pmt_row_name1"                 value="Tuote A" />
```

```
    <input type="hidden" name="pmt_row_desc1"                 value="Tuotteen A kuvaus" />
    <input type="hidden" name="pmt_row_quantity1"             value="2" />
    <input type="hidden" name="pmt_row_deliverydate1"         value="15.10.2014" />
    <input type="hidden" name="pmt_row_price_gross1"          value="123,00" />
<!--<input type="hidden" name="pmt_row_price_net1"            value="100,00" />-->  <!-- netto
vaihtoehtoinen brutolle -->
    <input type="hidden" name="pmt_row_vat1"                  value="23,00" />
    <input type="hidden" name="pmt_row_discountpercentage1"   value="0,00" />
    <input type="hidden" name="pmt_row_type1"                 value="1" />
    <input type="hidden" name="pmt_row_name2"                 value="Räätälöity alennustuote B" />
    <input type="hidden" name="pmt_row_desc2"                 value="Räätälöidyn alennustuotteen
kuvaus" />
    <input type="hidden" name="pmt_row_quantity2"             value="1" />
    <input type="hidden" name="pmt_row_deliverydate2"         value="15.10.2014" />
    <input type="hidden" name="pmt_row_price_gross2"          value="369,00" />
<!--<input type="hidden" name="pmt_row_price_net2"            value="300,00" />   netto
vaihtoehtoinen brutolle -->
    <input type="hidden" name="pmt_row_vat2"                  value="23,00" />
    <input type="hidden" name="pmt_row_discountpercentage2"   value="10,00" />
    <input type="hidden" name="pmt_row_type2"                 value="4" />
    <input type="hidden" name="pmt_row_name3"                 value="Toimituskulut" />
    <input type="hidden" name="pmt_row_desc3"                 value="Toimitustapa yms." />
    <input type="hidden" name="pmt_row_quantity3"             value="1" />
    <input type="hidden" name="pmt_row_deliverydate3"         value="15.10.2014" />
    <input type="hidden" name="pmt_row_price_gross3"          value="5,00" />
<!--<input type="hidden" name="pmt_row_price_net3"            value="5,00" />-->  <!-- netto
vaihtoehtoinen brutolle -->
    <input type="hidden" name="pmt_row_vat3"                  value="0,00" />
    <input type="hidden" name="pmt_row_discountpercentage3"   value="0,00" />
    <input type="hidden" name="pmt_row_type3"                 value="2" />
    <input type="hidden" name="pmt_row_name4"                 value="Alennus" />
    <input type="hidden" name="pmt_row_desc4"                 value="Alennuskupongin koodi tms." /
>
    <input type="hidden" name="pmt_row_quantity4"             value="1" />
    <input type="hidden" name="pmt_row_deliverydate4"         value="15.10.2014" />
    <input type="hidden" name="pmt_row_price_gross4"          value="-10,00" />
<!--<input type="hidden" name="pmt_row_price_net4"            value="-10,00" />-->  <!-- netto
vaihtoehtoinen brutolle -->
    <input type="hidden" name="pmt_row_vat4"                  value="0,00" />
    <input type="hidden" name="pmt_row_discountpercentage4"   value="0,00" />
    <input type="hidden" name="pmt_row_type4"                 value="6" />
    <input type="hidden" name="pmt_charset"                   value="ISO-8859-15" />
    <input type="hidden" name="pmt_charsethttp"               value="ISO-8859-15" />
    <input type="hidden" name="pmt_hashversion"               value="SHA-1" />
    <input type="hidden" name="pmt_hash"
value="D26B59EAD06ED6E44E0B279B61C4894DEEE85A8B" />
    <input type="hidden" name="pmt_keygeneration"             value="1" />
</form>
```

Example 2:

- Direct payment service (e.g. eMaksut)
- Billing and Delivery address identical

- Webstore return addresses contain querystring
  Buyer has chosen payment method Maksuturva Invoice (FI60) in the webstore

```
<form method="post" action="http://test1.maksuturva.fi/NewPaymentExtended.pmt">
    <input type="submit" value="Pay">

    <input type="hidden" name="pmt_action"                    value="NEW_PAYMENT_EXTENDED" />
    <input type="hidden" name="pmt_version"                   value="0004" />
    <input type="hidden" name="pmt_sellerid"                  value="ABC123DE" />
    <input type="hidden" name="pmt_id"                        value="1998524_1" />
    <input type="hidden" name="pmt_orderid"                   value="1998524" />
    <input type="hidden" name="pmt_reference"                 value="19985242" />
    <input type="hidden" name="pmt_duedate"                   value="15.10.2014" />
    <input type="hidden" name="pmt_userlocale"                value="fi_FI" />
    <input type="hidden" name="pmt_amount"                    value="568,10" />
    <input type="hidden" name="pmt_currency"                  value="EUR" />
    <input type="hidden" name="pmt_okreturn"                  value="http://www.mytestshop.fi/pay/
return/Success.do?paid=1" />
    <input type="hidden" name="pmt_errorreturn"               value="http://www.mytestshop.fi/pay/
return/Error.do?paid=0" />
    <input type="hidden" name="pmt_cancelreturn"              value="http://www.mytestshop.fi/pay/
return/Cancel.do?paid=0" />
    <input type="hidden" name="pmt_delayedpayreturn"          value="http://www.mytestshop.fi/pay/
return/Cancel.do?paid=0" />
    <input type="hidden" name="pmt_escrow"                    value="N" />  <!--
Suoramaksupalvelu, escrow=N -->
    <input type="hidden" name="pmt_escrowchangeallowed"       value="N" />
    <input type="hidden" name="pmt_paymentmethod"             value="FI60" />  <--- Verkkokaupassa
valittu maksutapa -->
    <input type="hidden" name="pmt_buyername"                 value="Teemu Testaaja" />
    <input type="hidden" name="pmt_buyeraddress"              value="Ruoholahdenkatu 23" />
    <input type="hidden" name="pmt_buyerpostalcode"           value="00180" />
    <input type="hidden" name="pmt_buyercity"                 value="Helsinki" />
    <input type="hidden" name="pmt_buyercountry"              value="FI" />
    <input type="hidden" name="pmt_buyerphone"                value="0401234567" />
    <input type="hidden" name="pmt_buyeremail"
value="teemu.testaaja@maksuturva.fi" />
    <input type="hidden" name="pmt_deliveryname"              value="Teemu Testaaja" />
    <input type="hidden" name="pmt_deliveryaddress"           value="Ruoholahdenkatu 23" />
    <input type="hidden" name="pmt_deliverypostalcode"        value="00180" />
    <input type="hidden" name="pmt_deliverycity"              value="Helsinki" />
    <input type="hidden" name="pmt_deliverycountry"           value="FI" />
    <input type="hidden" name="pmt_sellercosts"               value="5,00" />
    <input type="hidden" name="pmt_rows"                      value="4" />
    <input type="hidden" name="pmt_row_name1"                 value="Tuote A" />
    <input type="hidden" name="pmt_row_desc1"                 value="Tuotteen A kuvaus" />
    <input type="hidden" name="pmt_row_quantity1"             value="2" />
    <input type="hidden" name="pmt_row_deliverydate1"         value="15.10.2014" />
    <input type="hidden" name="pmt_row_price_gross1"          value="123,00" />
<!--<input type="hidden" name="pmt_row_price_net1"            value="100,00" />-->  <!-- netto
vaihtoehtoinen brutolle-->
    <input type="hidden" name="pmt_row_vat1"                  value="23,00" />
    <input type="hidden" name="pmt_row_discountpercentage1"   value="0,00" />
```

```
    <input type="hidden" name="pmt_row_type1"                  value="1" />
    <input type="hidden" name="pmt_row_name2"                  value="Räätälöity alennustuote B" />
    <input type="hidden" name="pmt_row_desc2"                  value="Räätälöidyn alennustuotteen
kuvaus" />
    <input type="hidden" name="pmt_row_quantity2"              value="1" />
    <input type="hidden" name="pmt_row_deliverydate2"          value="15.10.2014" />
    <input type="hidden" name="pmt_row_price_gross2"           value="369,00" />
<!--<input type="hidden" name="pmt_row_price_net2"             value="300,00" />-->  <!-- netto
vaihtoehtoinen brutolle -->
    <input type="hidden" name="pmt_row_vat2"                   value="23,00" />
    <input type="hidden" name="pmt_row_discountpercentage2"    value="10,00" />
    <input type="hidden" name="pmt_row_type2"                  value="4" />
    <input type="hidden" name="pmt_row_name3"                  value="Toimituskulut" />
    <input type="hidden" name="pmt_row_desc3"                  value="Toimitustapa yms." />
    <input type="hidden" name="pmt_row_quantity3"              value="1" />
    <input type="hidden" name="pmt_row_deliverydate3"          value="15.10.2014" />
    <input type="hidden" name="pmt_row_price_gross3"           value="5,00" />
<!--<input type="hidden" name="pmt_row_price_net3"             value="5,00" />-->  <!-- netto
vaihtoehtoinen brutolle -->
    <input type="hidden" name="pmt_row_vat3"                   value="0,00" />
    <input type="hidden" name="pmt_row_discountpercentage3"    value="0,00" />
    <input type="hidden" name="pmt_row_type3"                  value="2" />
    <input type="hidden" name="pmt_row_name4"                  value="Alennus" />
    <input type="hidden" name="pmt_row_desc4"                  value="Alennuskupongin koodi tms." /
>
    <input type="hidden" name="pmt_row_quantity4"              value="1" />
    <input type="hidden" name="pmt_row_deliverydate4"          value="15.10.2014" />
    <input type="hidden" name="pmt_row_price_gross4"           value="-10,00" />
<!--<input type="hidden" name="pmt_row_price_net4"             value="-10,00" />-->  <!-- netto
vaihtoehtoinen brutolle -->
    <input type="hidden" name="pmt_row_vat4"                   value="0,00" />
    <input type="hidden" name="pmt_row_discountpercentage4"    value="0,00" />
    <input type="hidden" name="pmt_row_type4"                  value="6" />
    <input type="hidden" name="pmt_charset"                    value="ISO-8859-15" />
    <input type="hidden" name="pmt_charsethttp"                value="ISO-8859-15" />
    <input type="hidden" name="pmt_hashversion"                value="SHA-1" />
    <input type="hidden" name="pmt_hash"
value="D26B59EAD06ED6E44E0B279B61C4894DEEE85A8B" />
    <input type="hidden" name="pmt_keygeneration"              value="1" />
</form>
```

OK Response examples (HTTP 302)

Please notice that these are both single URLs that have been splitted in multiple lines per querystring parameter.

```
http://www.mytestshop.fi/pay/return/Success.do
       ?pmt_action=NEW_PAYMENT_EXTENDED
       &pmt_version=0004
       &pmt_id=1998524_1
       &pmt_reference=00000000000019985242
       &pmt_amount=568,10
       &pmt_currency=EUR
```

```
        &pmt_sellercosts=5,00
        &pmt_escrow=Y
        &pmt_hash=F7C0E8A3F5F5FEDDC2B945F0246DE5FD27B9206B
        &pmt_paymentmethod=FI01

http://www.mytestshop.fi/pay/return/Success.do?paid=1
        &pmt_action=NEW_PAYMENT_EXTENDED
        &pmt_version=0004
        &pmt_id=1998524_1
        &pmt_reference=00000000000019985242
        &pmt_amount=568,10
        &pmt_currency=EUR
        &pmt_sellercosts=5,00
        &pmt_escrow=Y
        &pmt_hash=FFDFB9E0287706794232C4E34AF1FA11F7560288
        &pmt_paymentmethod=FI60
```

CANCEL Response examples (HTTP 302)

```
http://www.mytestshop.fi/pay/return/Cancel.do?pmt_id=1998524_1
http://www.mytestshop.fi/pay/return/Cancel.do?paid=0&pmt_id=1998524_1
```

ERROR Response examples (HTTP 302)

```
http://www.mytestshop.fi/pay/return/Error.do?pmt_id=1998524_1
http://www.mytestshop.fi/pay/return/Error.do?paid=0&pmt_id=1998524_1
```

If Maksuturva's payment method choosing page has been skipped, in some cases the names of erroneous input parameters are appended to the return URLs:

Invalid hash:

```
http://www.mytestshop.fi/pay/return/Error.do?pmt_id=1998524_1&error_fields=[generic][pmt_hash]
```

Invalid buyer email:

```
http://www.mytestshop.fi/pay/return/Error.do?pmt_id=1998524_1&error_fields=[model.pmt_buyeremail]
```

Invalid delivery address postal code:

```
http://www.mytestshop.fi/pay/return/Error.do?
pmt_id=1998524_1&error_fields=[model.pmt_deliverypostalcode]
```

Invalid buyer email, billing address postal code and delivery address postal code:

```
http://www.mytestshop.fi/pay/return/Error.do?pmt_id=1998524_1\
        &error_fields=[model.pmt_buyeremail][model.pmt_buyerpostalcode]
        [model.pmt_deliverypostalcode]
```

5.3.1 Example of payment request composition and hash calculation (PHP)

Here is a brief step by step example of how one can create a new payment request in their webstore software. These **simplified** examples are based on the implementation found from Maksuturva Prestashop Payment Module. In case of actual live production environments and webstores, one must perform further validation and e.g. take into account for example character set issues.

Especially, one should pay attention on how they store and reserve the secret key given by Maksuturva. The secret key must never be part of any request. It should only be used when creating the string from which the request hash is calculated. That is, neither this string in its final form should be shown or saved anywhere in plain text.

Constants (helper lists or tables)

See full list and description of parameters from Payment API.

List of compulsory payment fields (excluding hash)

```
protected $_compulsoryData = array(
      'pmt_action',
      'pmt_version',
      'pmt_sellerid',
      'pmt_id',
      'pmt_orderid',
      ...
      'pmt_hashversion',
      'pmt_keygeneration'
);
```

List of optional payment fields

```
protected $_optionalData = array(
      'pmt_selleriban',
      'pmt_userlocale',
      ...
      'pmt_buyeremail',
);
```

List of compulsory order row fields

```
protected $_rowCompulsoryData = array(
      'pmt_row_name',
      ...
      'pmt_row_discountpercentage',
      'pmt_row_type',
);
```

List of optional order row fields

```
protected $_rowOptionalData = array(
      'pmt_row_articlenr',
      'pmt_row_unit',
);
```

List of fields included in hash calculation string:
Important! The fields are listed in the exact order described in Payment API.

```
protected $_hashData = array(
     'pmt_action',
     'pmt_version',
     'pmt_selleriban',
     'pmt_id',
     ...
     'pmt_sellercosts'
);


$order_data_returned_from_store; // Order information from the webstore, array()
```

1. Order information validation (lengths, types etc.)

That is, validation of `$order_data_returned_from_store` against aforementioned lists of compulsory and optional fields.

2. Order row composition

```
$order = $order_data_returned_from_store->items(); // Order information from the webstore,
array()

$orderAmount = 0; // sum of rows of types 1, 4, 5, 6
$products_rows = array();

// Adding products
foreach ($order->getProducts() as $product) {
     $orderAmount += $product["total_price_including_vat"];
     $row = array(
          'pmt_row_name' => $product["name"],
          'pmt_row_desc' => $product["desc"],
          'pmt_row_quantity' => $product["cart_quantity"],
          'pmt_row_articlenr' => $product["reference"],
          'pmt_row_deliverydate' => date("d.m.Y"),
          'pmt_row_price_net' => $product["price_excluding_vat"],
          'pmt_row_vat' => $product["rate"],
          'pmt_row_discountpercentage' => $product["discount"],
          'pmt_row_type' => 1;
     );
     array_push($products_rows, $row);
}

// Adding shipping costs
$sellerCosts = $order_summary['total_shipping'];
$carrier = $order->id_carrier;
// Adding shipping costs as a row
$row = array(
     'pmt_row_name' => $carrier->name,
```

```
            'pmt_row_desc' => $carrier->name,
            'pmt_row_quantity' => 1,
            'pmt_row_deliverydate' => date("d.m.Y"),
            'pmt_row_price_net' => $order_summary['total_shipping'])),
            'pmt_row_vat' => $shippingVat,
            'pmt_row_discountpercentage' => $shipping_discount,
            'pmt_row_type' => 2,
        );
        array_push($products_rows, $row);

        // ... Continue by adding handling costs, customised products, services and discount rows
        //     in similar manner, but remember to adjust 'pmt_row_type' accordingly.
```

3. Composing rest of the order

```
        $order_data = array(
            "pmt_keygeneration"    => get('MAKSUTURVA_SECRET_KEY_VERSION'),
            "pmt_sellerid"         => get('MAKSUTURVA_SELLER_ID'),

            "pmt_id"               => {unique payment id},
            "pmt_orderid"          => {order id},
            "pmt_reference"        => {order bank reference number},

            ...
            "pmt_paymentmethod"    => {payment method code},     // prechosen payment method
(optional)

            // Customer Information
            "pmt_buyername"        => $order_summary["billing"]->firstname . " " .
$order_summary["billing"]->lastname,
            "pmt_buyeraddress"     => $order_summary["billing"]->address,
            ...
            // Delivery information
            "pmt_deliveryname"     => $order_summary["delivery"]->firstname . " " .
$order_summary["delivery"]->lastname,
            "pmt_deliveryaddress" => $order_summary["delivery"]->address,
            ...

            // Escrow (Satisfaction Guarantee vs. Direct payment)
            "pmt_escrow"           => "Y",     // "Y" in case of Satisfaction Guarantee services, and
"N" in case of Direct payment services

            "pmt_order_amount"     => $order_amount,
            "pmt_sellercosts"      => $sellerCosts,

            "pmt_rows"             => count($products_rows),
            "pmt_rows_data"        => $products_rows
        );
```

4. Hash generation

```
        protected function generateHash() {
            $hashString = '';
```

```
        // Loop through the list of fields included in the hash and add their value to the string
from which the
        // hash is calculated. Optional fields are included only if they are present (that is,
they have a value).
        foreach ($_hashData as $hash_data_parameter_name) {
            switch ($hash_data_parameter_name) {
                case 'pmt_selleriban':
                case 'pmt_invoicefromseller':
                case 'pmt_paymentmethod':
                case 'pmt_buyeridentificationcode':
                    if (in_array($hash_data_parameter_name, array_keys($order_data))) {
                        $hashString .= $order_data[$hash_data_parameter_name] . '&';
                    }
                    break;
                default:
                    $hashString .= $order_data[$hash_data_parameter_name] . '&';
            }
        }

        foreach ($order_data['pmt_rows_data'] as $order) {
            foreach ($order as $data) {
                $hashString .= $data . '&';
            }
        }

        $hashString .= get('MAKSUTURVA_SECRET_KEY') . '&';

        return hash({valittu hash algoritmi}, $hashString);
    }
```

5. Request compilation

```
    $url = "";
    foreach ($order_data as $key => $data) {
        if ($key == 'pmt_rows_data') {
            $rowCount = 1;
            foreach ($data as $rowData) {
                foreach ($rowData as $rowKey => $rowInnerData) {
                    $url .= $rowKey . $rowCount . '=' . $rowInnerData . '&';
                }
                $rowCount++;
            }
        } else {
            $url .= $key . '=' . $data . '&';
        }
    }
    $url .= 'pmt_hash='.generateHash();
    return $url;
```

5.4 Payment Status Query

Request example (HTTP POST)

```
<form method="post" action="http://test1.maksuturva.fi/PaymentStatusQuery.pmt">
    <input type="text" name="pmtq_action"        value="PAYMENT_STATUS_QUERY" />
    <input type="text" name="pmtq_version"       value="0005" />
    <input type="text" name="pmtq_sellerid"      value="ABC123DE" />
    <input type="text" name="pmtq_id"            value="1998524_1" />
    <input type="text" name="pmtq_resptype"      value="XML" />
    <input type="text" name="pmtq_hashversion"   value="SHA-256" />
    <input type="text" name="pmtq_hash"
value="6E496757BEA05DACEEEC625E9FCD12802AF67D189F311DAF372BB618A17341A3" />
    <input type="text" name="pmtq_keygeneration" value="1" />
</form>
```

Response examples (HTTP RESPONSE)

Payment was not found or the payment has not been confirmed:

```
<pmtq>
    <pmtq_returncode>00</pmtq_returncode>
    <pmtq_returntext>No payment found with specified data</pmtq_returntext>
    <pmtq_action>PAYMENT_STATUS_QUERY</pmtq_action>
    <pmtq_id>1998524_1</pmtq_id>
    <pmtq_amount>0,00</pmtq_amount>
    <pmtq_hash>7FC9C32FC4FCD351AC0C10CFA1A69C7D4D6BB17EAC972B44F084E8E0DE452DAE</pmtq_hash>
    <pmtq_sellerid>ABC123DE</pmtq_sellerid>
    <pmtq_version>0005</pmtq_version>
</pmtq>
```

Payment has not been confirmed:

The buyer may still be in the Internet bank and about to confirm the payment.

```
<pmtq>
    <pmtq_returntext>No payment found with specified data</pmtq_returntext>
    <pmtq_paymentmethod>FI01</pmtq_paymentmethod>
    <pmtq_amount>568,10</pmtq_amount>
    <pmtq_paymentstarttimestamp>15.10.2014 14:16:48</pmtq_paymentstarttimestamp>
    <pmtq_returncode>00</pmtq_returncode>
    <pmtq_certification>N</pmtq_certification>
    <pmtq_action>PAYMENT_STATUS_QUERY</pmtq_action>
    <pmtq_id>1998524_1</pmtq_id>
    <pmtq_escrow>Y</pmtq_escrow>
    <pmtq_hash>A217E028A693141DB445ED7A6A70646116F28E973B822254CAAFB18EA89EF912</pmtq_hash>
    <pmtq_sellerid>ABC123DE</pmtq_sellerid>
    <pmtq_sellercosts>5,00</pmtq_sellercosts>
    <pmtq_version>0005</pmtq_version>
</pmtq>
```

Payment has been confirmed (Satisfaction Guarantee payment service):

```
<pmtq>
    <pmtq_paymentdate>15.10.2014</pmtq_paymentdate>
    <pmtq_returntext>Paid and missing tracking code</pmtq_returntext>
    <pmtq_paymentmethod>FI01</pmtq_paymentmethod>
    <pmtq_amount>568,10</pmtq_amount>
    <pmtq_paymentstarttimestamp>15.10.2014 14:16:48</pmtq_paymentstarttimestamp>
    <pmtq_returncode>20</pmtq_returncode>
    <pmtq_certification>Y</pmtq_certification>
    <pmtq_action>PAYMENT_STATUS_QUERY</pmtq_action>
    <pmtq_id>1998524_1</pmtq_id>
    <pmtq_escrow>Y</pmtq_escrow>
    <pmtq_hash>3CAB3D9EA0C83EF9FCB843ECF864FC5111BDBC81AD66AF990E3105760C29CF6A</pmtq_hash>
    <pmtq_sellerid>ABC123DE</pmtq_sellerid>
    <pmtq_sellercosts>5,00</pmtq_sellercosts>
    <pmtq_version>0005</pmtq_version>
</pmtq>
```

Payment has been confirmed and delivery info has been added (Satisfaction Guarantee payment service):

```
<pmtq>
    <pmtq_paymentdate>15.10.2014</pmtq_paymentdate>
    <pmtq_returntext>Paid, being delivered and uncompensated</pmtq_returntext>
    <pmtq_paymentmethod>FI01</pmtq_paymentmethod>
    <pmtq_amount>568,10</pmtq_amount>
    <pmtq_paymentstarttimestamp>15.10.2014 14:16:48</pmtq_paymentstarttimestamp>
    <pmtq_returncode>30</pmtq_returncode>
    <pmtq_trackingcodes>[ITELL|JJFI12345678901234567|00]</pmtq_trackingcodes>
    <pmtq_certification>Y</pmtq_certification>
    <pmtq_action>PAYMENT_STATUS_QUERY</pmtq_action>
    <pmtq_id>1998524_1</pmtq_id>
    <pmtq_escrow>Y</pmtq_escrow>
    <pmtq_hash>4BC6BFA68A44CB0A432340FEE90B90C9844C466288FD9FFC260CEAFB4DAD3320</pmtq_hash>
    <pmtq_sellerid>ABC123DE</pmtq_sellerid>
    <pmtq_sellercosts>5,00</pmtq_sellercosts>
    <pmtq_version>0005</pmtq_version>
</pmtq>
```

Payment has been settled to webstore:

```
<pmtq>
    <pmtq_paymentdate>15.10.2014</pmtq_paymentdate>
    <pmtq_returntext>Compensated to the seller</pmtq_returntext>
    <pmtq_paymentmethod>FI01</pmtq_paymentmethod>
    <pmtq_amount>568,10</pmtq_amount>
    <pmtq_paymentstarttimestamp>15.10.2014 14:16:48</pmtq_paymentstarttimestamp>
    <pmtq_returncode>40</pmtq_returncode>
    <pmtq_trackingcodes>[ITELL|JJFI12345678901234567|80]</pmtq_trackingcodes>
    <pmtq_certification>Y</pmtq_certification>
    <pmtq_action>PAYMENT_STATUS_QUERY</pmtq_action>
    <pmtq_id>1998524_1</pmtq_id>
    <pmtq_escrow>Y</pmtq_escrow>
```

```
    <pmtq_hash>1A26625AB05E7CBCFB148894BE77AC498ED852D4526005F03B3E76791F4D3ACC</pmtq_hash>
    <pmtq_sellerid>ABC123DE</pmtq_sellerid>
    <pmtq_sellercosts>5,00</pmtq_sellercosts>
    <pmtq_version>0005</pmtq_version>
</pmtq>
```

5.5 Delivery Information Management

AddDeliveryInfo Request examples:

Adding Posti tracking code, but not the last one (`pkg_allsent=N`):

```
<form action="http://test1.maksuturva.fi/addDeliveryInfo.pmt">
    <input type="hidden" name="pkg_version"          value="0002">
    <input type="hidden" name="pkg_sellerid"         value="ABC123DE">
    <input type="hidden" name="pkg_id"               value="1998524_1">
    <input type="hidden" name="pkg_deliverymethodid" value="ITELL">
    <input type="hidden" name="pkg_adddeliveryinfo"  value="JJFI12345612345123456">
    <input type="hidden" name="pkg_allsent"          value="N">
    <input type="hidden" name="pkg_forceupdate"      value="N">
    <input type="hidden" name="pkg_resptype"         value="HTML">
<!--<input type="hidden" name="pkg_return"           value="">-->
    <input type="hidden" name="pkg_hashversion"      value="SHA-256">
    <input type="hidden" name="pkg_hash"
value="CFDDF22DD538FFECF6F784F5E10C88A3704ED597E700DE6A36979D868574B8C4">
    <input type="hidden" name="pkg_keygeneration"    value="1">
    <input type="submit" value="Add delivery info">
</form>
```

Adding the final Posti tracking code (`pkg_allsent=Y`):

```
<form action="http://test1.maksuturva.fi/addDeliveryInfo.pmt">
    <input type="hidden" name="pkg_version"          value="0002">
    <input type="hidden" name="pkg_sellerid"         value="ABC123DE">
    <input type="hidden" name="pkg_id"               value="1998524_1">
    <input type="hidden" name="pkg_deliverymethodid" value="ITELL">
    <input type="hidden" name="pkg_adddeliveryinfo"  value="JJFI12345612345123456">
    <input type="hidden" name="pkg_allsent"          value="Y">
    <input type="hidden" name="pkg_forceupdate"      value="N">
    <input type="hidden" name="pkg_resptype"         value="HTML">
<!--<input type="hidden" name="pkg_return"           value="">-->
    <input type="hidden" name="pkg_hashversion"      value="SHA-256">
    <input type="hidden" name="pkg_hash"
value="CA40867A33B5E6ACD525F89E398970A98C73F83AF9D02EAECCAFE2E2E92636E1">
    <input type="hidden" name="pkg_keygeneration"    value="1">
    <input type="submit" value="Add delivery info">
</form>
```

AddDeliveryInfo Response examples:

OK Response:

```
<pmtq>
    <pkg_resultcode>00</pkg_resultcode>
    <pkg_version>0002</pkg_version>
    <pkg_hash>9CDDD56A2E2756818D1E029153CD8DF7A6DD4ACE33296FB2CB5948AF3D5BA4AC</pkg_hash>
    <pkg_resulttext>OK</pkg_resulttext>
```

```
    <pkg_sellerid>ABC123DE</pkg_sellerid>
    <pkg_id>1998524_1</pkg_id>
</pmtq>
```

Error Response (`pkg_id` missing from the request):

```
<pmtq>
    <pkg_resultcode>99</pkg_resultcode>
    <pkg_version>0002</pkg_version>
    <pkg_hash>null</pkg_hash>
    <pkg_resulttext>pkg_id is a mandatory field</pkg_resulttext>
    <pkg_sellerid>ABC123DE</pkg_sellerid>
    <pkg_id/>
</pmtq>
```

Error response (`pkg_hash` did not match the value calculated by Maksuturva):

```
<pmtq>
    <pkg_resultcode>99</pkg_resultcode>
    <pkg_version>0002</pkg_version>
    <pkg_hash>null</pkg_hash>
    <pkg_resulttext>pkg_hash did not pass validation</pkg_resulttext>
    <pkg_sellerid>ABC123DE</pkg_sellerid>
    <pkg_id>1998524_1</pkg_id>
</pmtq>
```

UpdateDeliveryInfo Request example:

```
<form action="http://test1.maksuturva.fi/updateDeliveryInfo.pmt">
    <input type="hidden" name="pkg_version"           value="0002">
    <input type="hidden" name="pkg_sellerid"          value="ABC123DE">
    <input type="hidden" name="pkg_id"                value="1998524_1">
    <input type="hidden" name="pkg_deliverymethodid"  value="ITELL">
    <input type="hidden" name="pkg_remdeliverymethod" value="JJFI12345612345123456">
    <input type="hidden" name="pkg_adddeliveryinfo"   value="JJFI12345612345234567">
    <input type="hidden" name="pkg_allsent"           value="N">
    <input type="hidden" name="pkg_forceupdate"       value="N">
    <input type="hidden" name="pkg_resptype"          value="XML">
<!--<input type="hidden" name="pkg_return"            value="">-->
    <input type="hidden" name="pkg_hashversion"       value="SHA-256">
    <input type="hidden" name="pkg_hash"
value="0B7591FAB0B9ED72FBDBB8B99F6C92BB82043BB03F056B4400BF71D71A939EC0">
    <input type="hidden" name="pkg_keygeneration"     value="1">
    <input type="submit" value="Update delivery info">
</form>
```

UpdateDeliveryInfo Response example:

OK Response:

```
<pmtq>
    <pkg_resultcode>00</pkg_resultcode>
    <pkg_version>0002</pkg_version>
```

```
    <pkg_hash>CFDDF22DD538FFECF6F784F5E10C88A3704ED597E700DE6A36979D868574B8C4</pkg_hash>
    <pkg_resulttext>OK</pkg_resulttext>
    <pkg_sellerid>ABC123DE</pkg_sellerid>
    <pkg_id>1998524_1</pkg_id>
</pmtq>
```

DeleteDeliveryInfo Request example:

```
<form action="http://test1.maksuturva.fi/deleteDeliveryInfo.pmt">
    <input type="hidden" name="pkg_version"           value="0002">
    <input type="hidden" name="pkg_sellerid"          value="ABC123DE">
    <input type="hidden" name="pkg_id"                value="1998524_1">
    <input type="hidden" name="pkg_deliverymethodid"  value="ITELL">
    <input type="hidden" name="pkg_remdeliverymethod" value="JJFI12345612345234567">
    <input type="hidden" name="pkg_allsent"           value="N">
    <input type="hidden" name="pkg_forceupdate"       value="N">
    <input type="hidden" name="pkg_resptype"          value="XML">
<!--<input type="hidden" name="pkg_return"            value="">-->
    <input type="hidden" name="pkg_hashversion"       value="SHA-256">
    <input type="hidden" name="pkg_hash"
value="CA40867A33B5E6ACD525F89E398970A98C73F83AF9D02EAECCAFE2E2E92636E1">
    <input type="hidden" name="pkg_keygeneration"     value="1">
    <input type="submit" value="Delete delivery info">
</form>
```

DeleteDeliveryInfo Response example:

OK Response:

```
<pmtq>
    <pkg_resultcode>00</pkg_resultcode>
    <pkg_version>0002</pkg_version>
    <pkg_hash>CFDDF22DD538FFECF6F784F5E10C88A3704ED597E700DE6A36979D868574B8C4</pkg_hash>
    <pkg_resulttext>OK</pkg_resulttext>
    <pkg_sellerid>ABC123DE</pkg_sellerid>
    <pkg_id>1998524_1</pkg_id>
</pmtq>
```

5.6 Payment refunds and cancellations

Request examples (HTTP POST)

Full refund:

```
<form method="post" action="http://test1.maksuturva.fi/PaymentCancel.pmt">
    <input type="hidden" name="pmtc_action"            value="CANCEL" />
    <input type="hidden" name="pmtc_version"           value="0005" />
    <input type="hidden" name="pmtc_sellerid"          value="ABC123DE" />
    <input type="hidden" name="pmtc_id"                value="1998524_1" />
    <input type="hidden" name="pmtc_amount"            value="568,10" />
    <input type="hidden" name="pmtc_currency"          value="EUR" />
    <input type="hidden" name="pmtc_canceltype"        value="FULL_REFUND" />
    <input type="hidden" name="pmtc_canceldescription" value="Valitettavasti tuotteet olivat
päässeet loppumaan varastosta." />
    <input type="hidden" name="pmtc_cancelreason"      value="OUTOF" />
    <input type="hidden" name="pmtc_resptype"          value="XML" />
    <input type="hidden" name="pmtc_hashversion"       value="SHA-256" />
    <input type="hidden" name="pmtc_hash"
value="C1F6CBA732E925C15E7B42238ED4FEA31DAA54BE53BE6A09748DF4F8EAC94269" />
    <input type="hidden" name="pmtc_keygeneration"     value="1" />
    <input type="submit" value="Lähetä peruutussanoma" />

</form>
```

Partial refund of 150,00 €:

```
<form method="post" action="http://test1.maksuturva.fi/PaymentCancel.pmt">
    <input type="hidden" name="pmtc_action"            value="CANCEL" />
    <input type="hidden" name="pmtc_version"           value="0005" />
    <input type="hidden" name="pmtc_sellerid"          value="ABC123DE" />
    <input type="hidden" name="pmtc_id"                value="1998524_1" />
    <input type="hidden" name="pmtc_amount"            value="568,10" />
    <input type="hidden" name="pmtc_currency"          value="EUR" />
    <input type="hidden" name="pmtc_canceltype"        value="PARTIAL_REFUND" />
    <input type="hidden" name="pmtc_cancelamount"      value="150,00" />
    <input type="hidden" name="pmtc_canceldescription" value="Hyvitys siitä, että toimitusaika
venähti lupauksistamme huolimatta." />
    <input type="hidden" name="pmtc_cancelreason"      value="OTHER" />
    <input type="hidden" name="pmtc_resptype"          value="XML" />
    <input type="hidden" name="pmtc_hashversion"       value="SHA-256" />
    <input type="hidden" name="pmtc_hash"
value="3BB641AD9F2A26CCFBDAA36E58D25F011A9721D8F47570B07A7EBEE4DBE9F14F" />
    <input type="hidden" name="pmtc_keygeneration"     value="1" />
    <input type="submit" value="Lähetä peruutussanoma" />

</form>
```

Partial refund of 123,00 € and return of deliveries:

```
<form method="post" action="http://test1.maksuturva.fi/PaymentCancel.pmt">
    <input type="hidden" name="pmtc_action"            value="CANCEL" />
    <input type="hidden" name="pmtc_version"           value="0005" />
    <input type="hidden" name="pmtc_sellerid"          value="ABC123DE" />
    <input type="hidden" name="pmtc_id"                value="1998524_1" />
    <input type="hidden" name="pmtc_amount"            value="568,10" />
    <input type="hidden" name="pmtc_currency"          value="EUR" />
    <input type="hidden" name="pmtc_canceltype"
value="PARTIAL_REFUND_AND_RETURN_OF_DELIVERIES" />
    <input type="hidden" name="pmtc_cancelamount"      value="123,00" />
    <input type="hidden" name="pmtc_canceldescription" value="Ostaja palauttaa toisen tilaamistaan
tuote A:sta" />
    <input type="hidden" name="pmtc_cancelreason"      value="DEFEC" />
    <input type="hidden" name="pmtc_resptype"          value="XML" />
    <input type="hidden" name="pmtc_hashversion"       value="SHA-256" />
    <input type="hidden" name="pmtc_hash"
value="E6495B9E0C05BE827F5BE97FA371193B793F59B4F2A4068165BD4DAEBA96E6F7" />
    <input type="hidden" name="pmtc_keygeneration"     value="1" />
    <input type="submit" value="Lähetä peruutussanoma" />

</form>
```

XML Response examples (HTTP RESPONSE)

OK Response:

```
<pmtc>
    <pmtc_action>CANCEL</pmtc_action>
    <pmtc_version>0005</pmtc_version>
    <pmtc_sellerid>ABC123DE</pmtc_sellerid>
    <pmtc_id>1998524_1</pmtc_id>
    <pmtc_returncode>00</pmtc_returncode>
    <pmtc_returntext>Cancel received succesfully</pmtc_returntext>
    <pmtc_hash>E8343D1E9995854BA4A13BE5B6FB4E4DD61A362BE682336CA7A10145BC77FFEC</pmtc_hash>
</pmtc>
```

Error response (missing pmtc_cancelamount from the request e.g. in case of a partial refund):

```
<pmtc>
    <pmtc_action>CANCEL</pmtc_action>
    <pmtc_version>0005</pmtc_version>
    <pmtc_sellerid>ABC123DE</pmtc_sellerid>
    <pmtc_id>1998524_1</pmtc_id>
    <pmtc_returncode>90</pmtc_returncode>
    <pmtc_returntext>Errors in input data, specified in element errors</pmtc_returntext>
    <errors>
        <error name="pmtc_cancelamount" type="field">pmtc_cancelamount is invalid</error>
    </errors>
</pmtc>
```

Error response (pmtc_hash did not match the value calculated by Maksuturva):

```
<pmtc>
```

```
    <pmtc_action>CANCEL</pmtc_action>
    <pmtc_version>0005</pmtc_version>
    <pmtc_sellerid>ABC123DE</pmtc_sellerid>
    <pmtc_id>1998524_1</pmtc_id>
    <pmtc_returncode>90</pmtc_returncode>
    <pmtc_returntext>Errors in input data, specified in element errors</pmtc_returntext>
    <errors>
        <error name="pmtc_hash" type="field">pmtc_hash is invalid</error>
    </errors>
</pmtc>
```

5.7 Retrieve Settlement Reports

Request example (HTTP POST)

Requesting information about October 14th 2014 settlements:

```
<form method="post" action="http://test1.maksuturva.fi/GetCompensationsByTimeInterval.pmt">
    <input type="hidden" name="gc_action"        value="GET_COMPENSATIONS" />
    <input type="hidden" name="gc_version"       value="0001" />
    <input type="hidden" name="gc_sellerid"      value="ABC123DE" />
    <input type="hidden" name="gc_begindate"     value="14.10.2014" />
    <input type="hidden" name="gc_enddate"       value="14.10.2014" />
    <input type="hidden" name="gc_hashversion"   value="SHA-256" />
    <input type="hidden" name="gc_keygeneration" value="001" />
    <input type="hidden" name="gc_hash"
value="CFDDF22DD538FFECF6F784F5E10C88A3704ED597E700DE6A36979D868574B8C4" />
    <input type="submit" value="Hae raportti">
</form>
```

Esimerkkejä XML-vastauksista (HTTP RESPONSE)

OK Response containing a single settlement done using the webstore's original payment reference (pmt_reference):

```
<ns2:getCompensationsResponse xmlns:ns2="https://www.maksuturva.fi/smtschema/
GetCompensationsResponse.xsd">
    <version>0001</version>
    <timestamp>2014-10-16T14:14:51.000+03:00</timestamp>
    <sellerId>ABC123DE</sellerId>
    <resultCode>00</resultCode>
    <resultText>OK</resultText>
    <hashVersion>SHA-256</hashVersion>
    <keyGeneration>1</keyGeneration>
    <hash>9B7ADF7633688101301E8F7617E996777D329A390F56FD135BE0122C46745BEC</hash>
    <compensations>
        <compensation>
            <compensationType>SINGLE</compensationType>
            <compensationDate>2014-10-14T00:00:00.000+03:00</compensationDate>
            <reference>00000001234567890120</reference>
            <grossAmount>573.1</grossAmount>
            <netAmount>564.31</netAmount>
            <refundedAmount>0</refundedAmount>
            <commission>8.79</commission>
            <orders>
                <order>
                    <orderNumber>1998524</orderNumber>
                    <originalReference>1234567890120</originalReference>
                    <paymentId>1998524_1</paymentId>
                    <sellerGrossAmount>573.1</sellerGrossAmount>
                    <sellerNetAmount>564.31</sellerNetAmount>
                    <refundedAmount>0</refundedAmount>
```

```
                <commission>8.79</commission>
                <buyerPaymentDateTime>2014-09-27T00:00:00.000+03:00</buyerPaymentDateTime>
            </order>
        </orders>
    </compensation>
</compensations>
</ns2:getCompensationsResponse>
```

OK Response containing one bundle settlement with reference number 1232 consisting of two payments or orders:

```
<ns2:getCompensationsResponse xmlns:ns2="https://www.maksuturva.fi/smtschema/
GetCompensationsResponse.xsd">
    <version>0001</version>
    <timestamp>2014-10-16T14:27:26.000+03:00</timestamp>
    <sellerId>ABC123DE</sellerId>
    <resultCode>00</resultCode>
    <resultText>OK</resultText>
    <hashVersion>SHA-256</hashVersion>
    <keyGeneration>1</keyGeneration>
    <hash>E7BE30D784E97F98673E28F2570CF69AEE03810BE51E5EA773FD0E6ADAC99547</hash>
    <compensations>
        <compensation>
            <compensationCode>10000000000000000000</compensationCode>
            <compensationType>BUNDLE</compensationType>
            <compensationDate>2014-10-14T14:27:12.000+03:00</compensationDate>
            <reference>00000000000000001232</reference>
            <grossAmount>1146.20</grossAmount>
            <netAmount>1051.44</netAmount>
            <refundedAmount>0.00</refundedAmount>
            <commission>94.76</commission>
            <orders>
                <order>
                    <bundleCode>10000000000000000000</bundleCode>
                    <orderNumber>1998524</orderNumber>
                    <originalReference>19985242</originalReference>
                    <paymentId>1998524_1</paymentId>
                    <sellerGrossAmount>573.1</sellerGrossAmount>
                    <sellerNetAmount>564.31</sellerNetAmount>
                    <refundedAmount>0</refundedAmount>
                    <commission>8.79</commission>
                    <buyerPaymentDateTime>2014-09-27T00:00:00.000+03:00</buyerPaymentDateTime>
                </order>
                <order>
                    <bundleCode>10000000000000000000</bundleCode>
                    <orderNumber>2000301</orderNumber>
                    <originalReference>20003016</originalReference>
                    <paymentId>2000301_1</paymentId>
                    <sellerGrossAmount>573.1</sellerGrossAmount>
                    <sellerNetAmount>487.13</sellerNetAmount>
                    <refundedAmount>0</refundedAmount>
                    <commission>85.97</commission>
                    <buyerPaymentDateTime>2014-09-30T00:00:00.000+03:00</buyerPaymentDateTime>
```

```
                </order>
            </orders>
        </compensation>
    </compensations>
</ns2:getCompensationsResponse>
```

The requested date interval did not contain any settlements:

```
<ns2:getCompensationsResponse xmlns:ns2="https://www.maksuturva.fi/smtschema/
GetCompensationsResponse.xsd">
    <timestamp>2014-10-16T14:09:17.000+03:00</timestamp>
    <sellerId>ABC123DE</sellerId>
    <resultCode>95</resultCode>
    <resultText>No events found.</resultText>
    <keyGeneration>1</keyGeneration>
</ns2:getCompensationsResponse>
```

The requested date interval exceeded the maximum of one month:

```
<ns2:getCompensationsResponse xmlns:ns2="https://www.maksuturva.fi/smtschema/
GetCompensationsResponse.xsd">
    <timestamp>2014-10-16T14:07:45.000+03:00</timestamp>
    <sellerId>ABC123DE</sellerId>
    <resultCode>95</resultCode>
    <resultText>Errors in: {[gc_enddate:the given interval is too big. Maximum allowed is one
month.]}</resultText>
    <keyGeneration>1</keyGeneration>
</ns2:getCompensationsResponse>
```

6. FAQ

Frequently asked questions

6.1. What does this error mean

6.1.1. existingPayment (Payment id is invalid)

```
error_fields=[generic][pmt_sellerid][pmt_id][existingPayment]
```

Web store's account id (pmt_sellerid) and payment id (pmt_id) form a unique key pair for identifying the payment event in a New Payment Request. Therefore a payment id that the web store has already used before can not be used again with the same Web Store's account id. In general, a pmt_id is registered in the Maksuturva service at the moment it is received as a part of a Maksuturva payment request. That is, the basic rule is that a formerly received pmt_id cannot be reused even if the buyer cancels or interrupts the payment process. **This applies for both Maksuturva test and production environments.**

If the payment id is calculated or derived e.g. from the web stores order numbers and the web store is reinstalled or moved to a new installation, webstore must ensure that either

- the order numbering starts from previously unused number or
- the pmt_id calculation uses (new) calculation rules that produce pmt_id-values that do not conflict with the previously used pmt_id-values

E.g. in Maksuturva payment module for WooCommerce the store admin can choose to add a separate prefix for the payment ids. Therefore even if the web store order numbering has been reset, the pmt_id calculation rules in the module program code do not need to be changed but adding (or changing) the prefix in the store admin is sufficient.

An example of a scenario where the problem occurs

The web store forms Maksuturva payment ids using a rule pmt_id = {pmt_orderid} + "ABC".

Before opening the web store for customers the vendor makes a test purchase (pmt_orderid=0001, pmt_id=0001ABC) which is received and registered in the Maksuturva service. After a successful test the vendor clears the orders database in the store and opens the store for actual customers. When the first customer makes an order the web store starts order numbering again from the start (1) and forms a pmt_id "0001ABC" for the order.

As the pmt_id "0001ABC" had already been used before, Maksuturva service does not accept the order and returns an error. As the payment fails the web store rejects the order and order number 1 is left unused for the next order. In the future all the orders are given the order number 1 and pmt_id "0001ABC" and as they all are always rejected no new payments can be successfully made before the order numbering has been manually changed to start from a bigger order number.

6.1.2. hash value is invalid

```
error_fields=[generic][pmt_hash]

"Errors in Payment message, hash value is invalid"
```

This error can occur with all interface requests that require hash verification.

The hash is generated by first concatenating message fields and a secret key into a single string where each field is separated by a & character. Difference in one character results into different hash value. The secret key is never sent as part of the message. Its only purpose is to be a secret part of the string from which the hash is calculated from, only known by web store and Maksuturva. This means that even if outsider could get their hands on all the information in the message, they can not generate a hash value that would match the hash value calculated in the receiving end because of the unknown salt that the secret key is.

Yet, web store software or a payment module can still generate a invalid hash. For example:

- The string is missing one or more fields specific to the API being called.
- The string contains fields that is not supposed to
- The fields have not been concatenated in correct order.
- The web store ID or secret key are incorrect (e.g. test and production environment have completely separate credentials). For more help, see section Tips for hash calculation
- Some fields contain whitespaces or control characters that were not part the message but have been taken into account when creating the string; or the other way around.
- The message fields contain characters outside US-ASCII character set and at the same time the `pmt_charset` contains different charset that actually have been used for the hash calculation. For example, the message field pmt_charset=UTF-8 but the web store software calculated hash using ISO-8859-15 character set. This way for example umlauts and em dash etc. result into different hash values at the receiving end. For example character 'ä' has value 'c3e4' in UTF-8 and 'E4' in ISO-8859-15.

In addition, when the product information is copy pasted from rich text editors (for example MS Word) to the web store, some special characters might cause problems later in the hash calculation since also product specific information (`pmt_row_*`) is part of the string from which the hash is calculated from. These special characters might be taken into account when calculating the hash but at the same time they are not visible in the web store and are not sent as part of the `pmt_row_*` message field values.

To tackle these special character issues etc., it is highly recommended that the webstore sanitizes the field values for both hash calculation and the message sent to Maksuturva. This is also kind of a security enhancement.

To debug hash issues even in production environment (but only for a short period of course), webstore can use generic test credentials and the resulting diagnostics test page. Webstore can the compare the string they used for hash calculation in their code and the string Maksuturva used. See next page.

The string in the diagnostics test page:

Sisään tullutta tarkistetta tarkistettaessa käytettiin seuraavaa dataa

NEW_PAYMENT_EXTENDED&0004&150&150&1504&06.10.2014&33,48&EUR&http://linux1.domain1.maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php&http://linux1.domain1.maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?error=1&http://linux1.domain1.maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?cancel=1&http://linux1.domain1.maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?delayed=1&Y&N&Teemu Testaaja&Testikatu 11&11111&Helsinki&FI&Teemu Testaaja&Testikatu 11&11111&Helsinki&FI&0,00&Blouse *&Short sleeved blouse with feminine draped sleeve detail.&1&0&06.10.2014&33,48&24,00&0,00&1&Nouto&Nouto&1&06.10.2014&0,00&0,00&0,00&2&<salainen avain>&

The string from webstore logs:

```
[Mon Oct 06 17:23:40 2014] [error] [client 192.168.0.57] concatenated string to hash: NEW PAYMENT EXTENDED&0004&150&150&1504&06.10.2014&33,48&EUR&http://[redacted]ma
ksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php&http://[redacted]maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/val
idation.php?error=1&http://[redacted]maksuturva.fi/testaus/testikaupat/asiakastesti/modules/maksuturva/validation.php?cancel=1&http://[redacted]maksuturva.fi/te
staus/testikaupat/asiakastesti/modules/maksuturva/validation.php?delayed=1&Y&N&Teemu Testaaja&Testikatu 11&11111&Helsinki&FI&Teemu Testaaja&Testikatu 11&11111&Helsinki&FI
&0,00&Blouse&Short sleeved blouse with feminine draped sleeve detail.&1&0&06.10.2014&33,48&24,00&0,00&1&Nouto&Nouto&1&06.10.2014&0,00&0,00&0,00&2&112233445566778899006&, r
eferer: http://[redacted]maksuturva.fi/testaus/testikaupat/asiakastesti/fi/quick-order
"/var/log/httpd/error_log" 34L, 5699C
```

Read more: 3.9 Hash Calculation

7. KauppiasExtranet user manual

Instructions for using the KauppiasExtranet service in online shopping
version 1.8

KauppiasExtranet is a user interface offered to web stores for browsing and processing transactions that have been paid with the Maksuturva service. The service is available in both the production and the test environments of Maksuturva. You will receive a user name and password when you order the service using the order form, or from our sales team if you order a customized service package. Note that the user name and passwords for services of the production and test environment are separate.

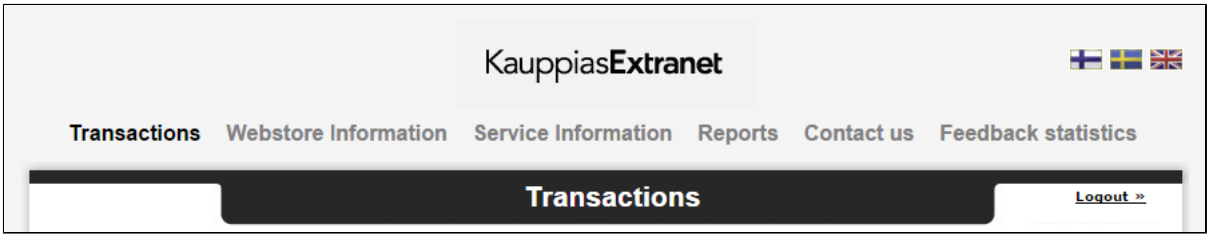
KauppiasExtranet allows you to

• check data of orders
• make returns for orders made by card (including in direct payment services and after payments have been settled)
• make returns for orders paid with Maksuturva Invoice and or Maksuturva Part Payment (including in direct payment services and after payments have been settled)
• check data of your own company and web store
• check the data of your Maksuturva service
• print reports to be used for accounting, for instance
• send feedback, suggestions and requests for support to Maksuturva
• manage risks related to debit and credit card payments

When you have the Satisfaction Guarantee Service with KauppiasExtranet you also

• can add shipping data to the order (only in the Satisfaction Guarantee service)
• make a cancellation / full return, partial returns or refunds also for orders made with online bank payments, SveaWebPay Invoice or SveaWebPay Part Payment.
• process returns, partial returns and reclamations made by buyers

When making a money refund for an order, regardless of your type of payment service, whether or not returns have already been made for the order, or whether or not payments for the order have already been settled, always try to first make a refund in KauppiasExtranet.



The Account **Transactions** page shows a summary of pending transactions and allows you to browse transactions using various search criteria. You can also process individual orders by adding shipping data, for instance, process cancellations and returns by buyers, or cancel a transaction.

You can review the data of your company, web store and Maksuturva service from the **Webstore Information** and **Service Information** pages.

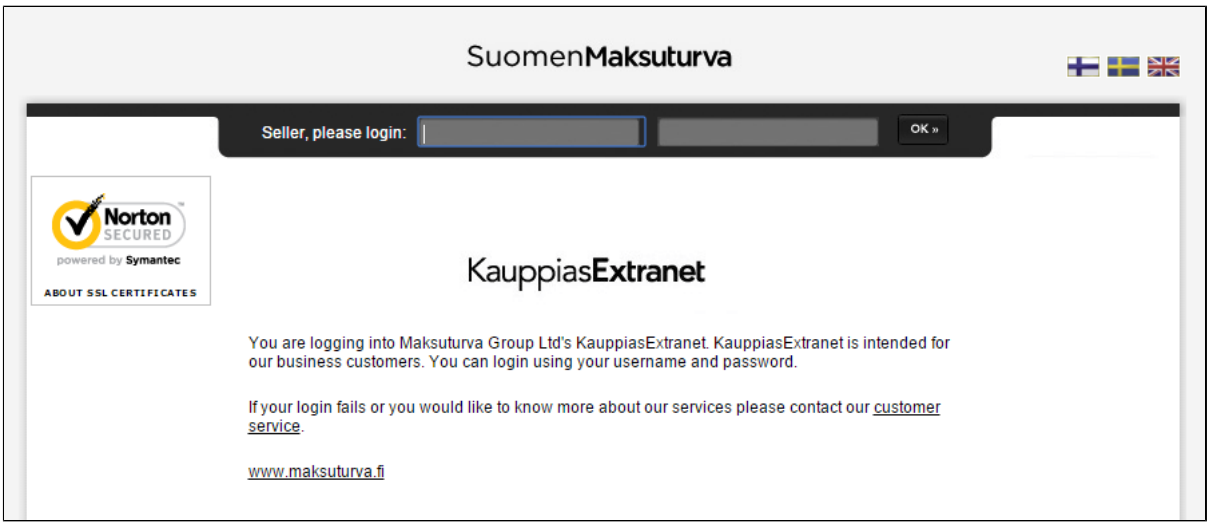
On the **Reports** page you can easily generate reports needed for accounting in csv format. The reports for purchases paid with SveaWebPay payment methods can be retreived from The Svea Admin user interface which can also be accessed from the Reports page if necessary.

On the **Contact us** page you can send us feedback or a contact request.

On the **Feedback statistics** page, web stores that use the Satisfaction Guarantee can review the feedback they receive in Web Buyer's services.

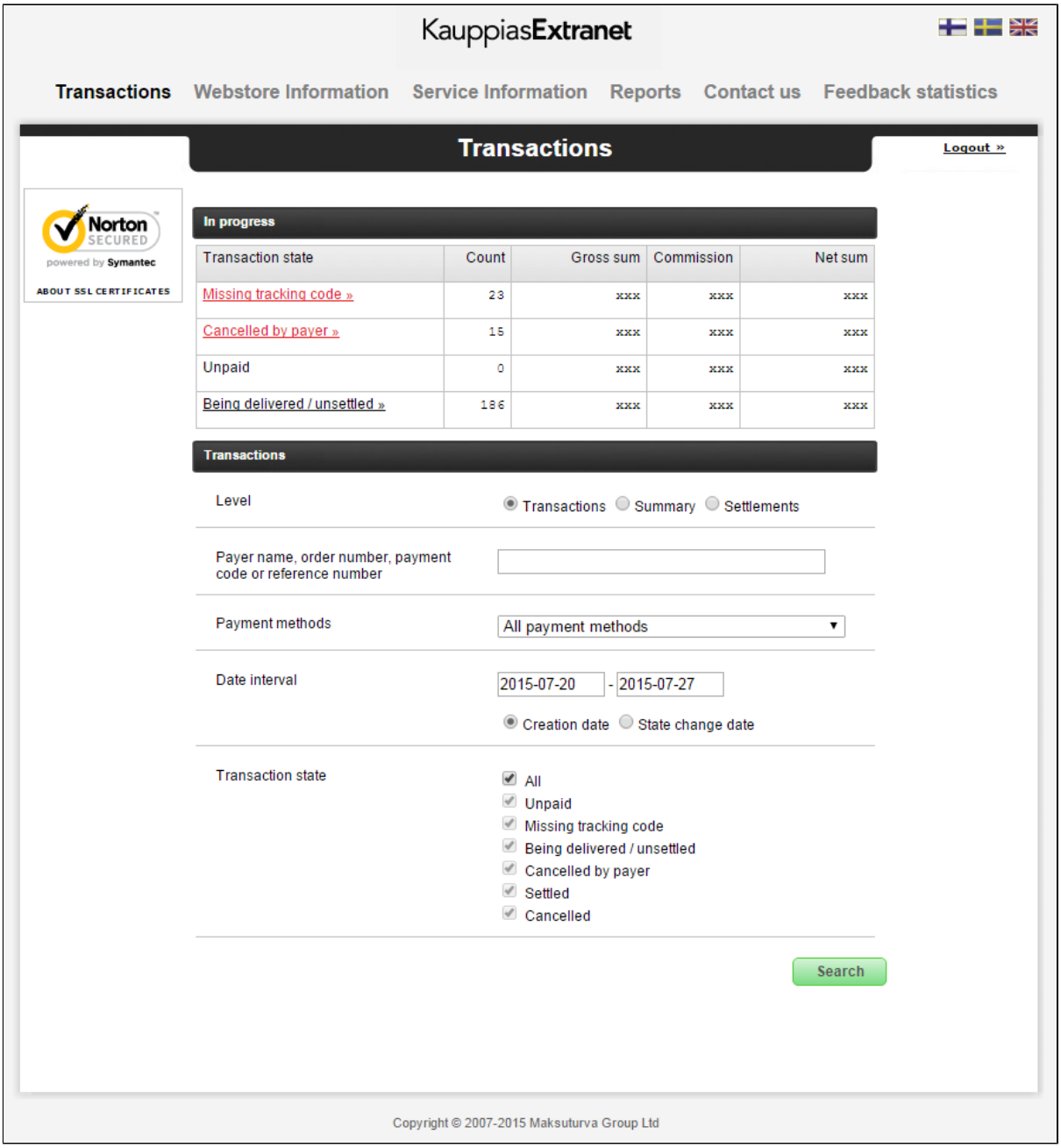
7.1 Logging in

You receive the username and password needed for using the KauppiasExtranet when you order the Maksuturva service. Log in to the KauppiasExtranet at https://www.maksuturva.fi/extranet/ (in the test environment http://test1.maksuturva.fi/extranet).


SuomenMaksuturva
Seller, please login:
OK »
Norton SECURED
powered by Symantec
ABOUT SSL CERTIFICATES
KauppiasExtranet
You are logging into Maksuturva Group Ltd's KauppiasExtranet. KauppiasExtranet is intended for our business customers. You can login using your username and password.
If your login fails or you would like to know more about our services please contact our customer service.
www.maksuturva.fi

7.2 Management of payment transactions

The Account ActivityTransactions page that opens up after logging in contains pending transactions and the ability to seek either individual transactions or browse transactions.



7.2.1 Management of pending transactions

Transactions in progress is a summary of all the transactions that require actions from you (shipment data missing and cancellations by buyers) and that have not yet been settled. The statuses of a transaction serve as links to transactions.

In progress

Transaction state	Count	Gross sum	Commission	Net sum
Missing tracking code »	23	xxx	xxx	xxx
Cancelled by payer »	15	xxx	xxx	xxx
Unpaid	0	xxx	xxx	xxx
Being delivered / unsettled »	186	xxx	xxx	xxx

Missing tracking code

Buyers have paid for these transactions but they have not yet been given shipping data. Related shipping data must be added to every transaction so that Maksuturva can track the progress of a shipment and finally settle the payments to the web store. See adding shipping information in section 7.2.4.1 Adding shipping data.

Cancelled by payer

These are transactions for which the buyers have taken advantage of Maksuturva's Satisfaction Guarantee service, i.e. they have made a reclamation, want to negotiate a price reduction, made a partial return or have cancelled an entire order through the Web Buyer's Services page. Open an event to get more information of the buyer's actions. In order to refund payments to buyers who have cancelled a purchase or made a partial return, you must accept the cancellation or partial return. If the order being cancelled involves the return of a product, do not make the cancellation until you have received the return from the buyer. Read more from section 7.2.4.3 Making changes, buyer initiates.

Unpaid

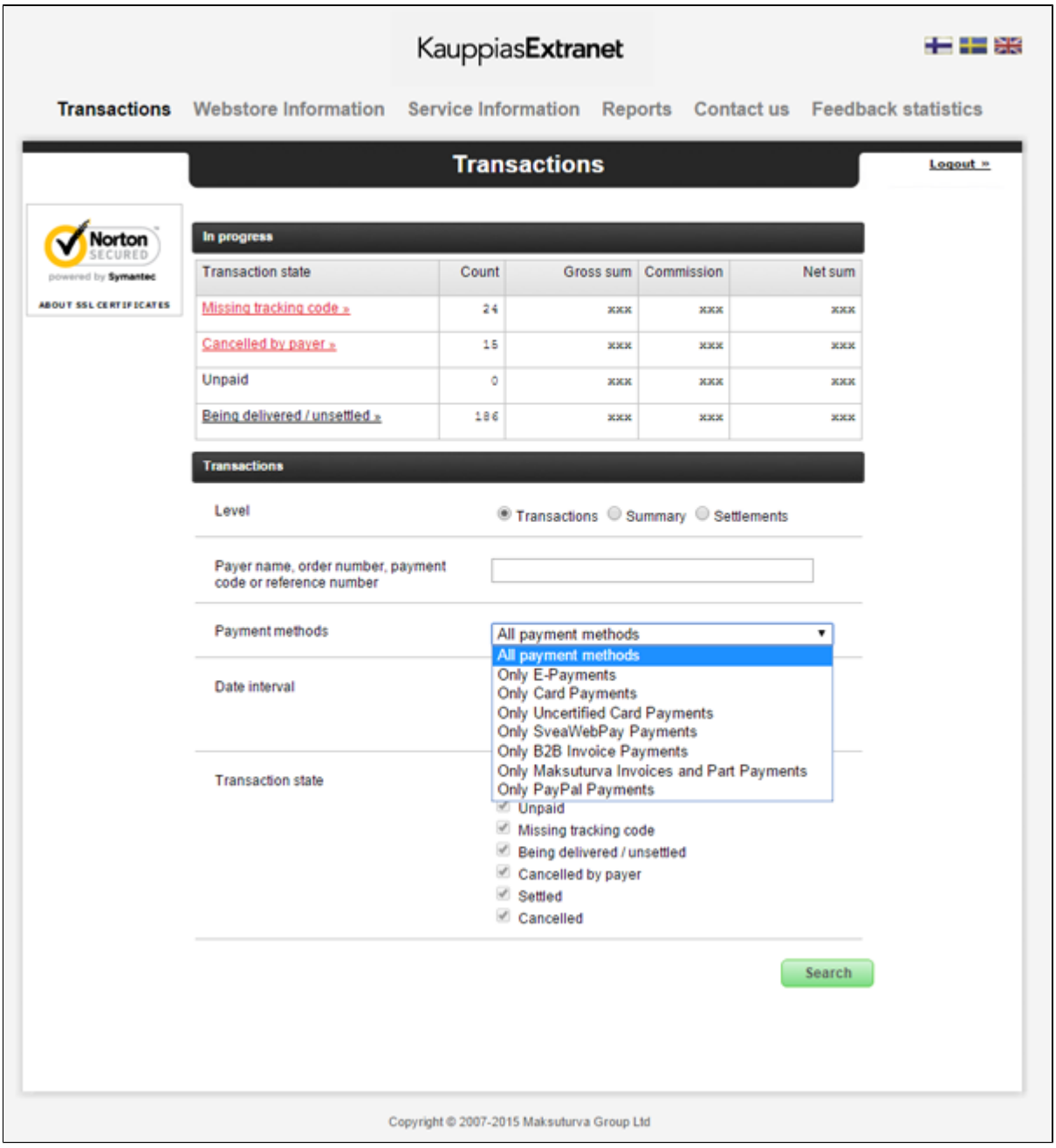
Applies only to unpaid account transfer transactions. Not in use.

Being delivered / unsettled

Payment has already been made for these transactions and shipping data have been added to them but the payment has not been settled yet.

7.2.2 Searching for transactions

Search for individual transactions by name of payer, order number, payment ID or reference number.



You can search for transactions based on payment method. If card payments are used, you can use this to easily search for unverified card transactions for review. More information on card payments and risk management tools is available in section 7.7 Risk management of card payments

You can also search for transactions with time period and transaction status. When using time period to search, you can select whether to direct the search to generation time or to the date and time of a status. Generation time refers to the point in time when a transaction is generated. Time of status refers to point in time when the transaction has entered its current status.

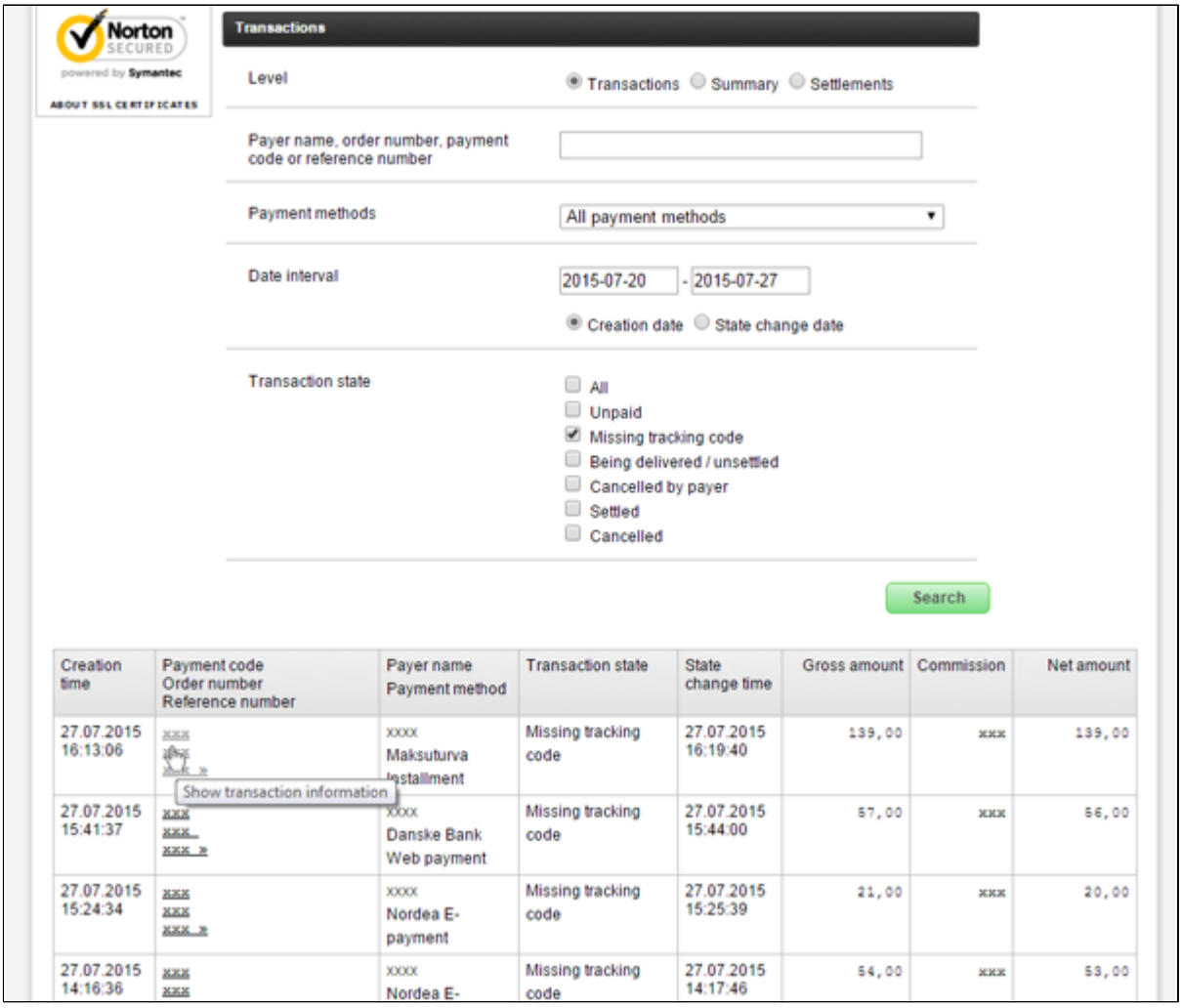
For example:

Search for all transactions over the time period 1 April – 30 April 2015:

- If generation date is selected, all transactions generated in April come to the report. In this case it's possible the crediting does not occur until May.
- If status date is selected, transactions that have entered the searched status (for example "credited" during April come to the report. In this case there may be transactions that have been generated as early as March.

7.2.3 Transaction list

After searching for transactions with certain criteria or clicked on the status link of pending transactions, you get a list of transactions according to the search criteria.



The transaction list can be generated (in CSV format) directly into excel by clicking on the *Save search results as CSV file* – link at the end of the list. Click on the ID / order number / reference numbers of the relevant transaction to review and process individual transactions on the list.

7.2.4 Individual payment transaction

On the Transaction Information screen you review the data of an individual transaction, process the cancellation / price correction / partial return if necessary and add and update the shipment data of the transaction.

Transaction Information

Begin cancellation ... | Begin partial refund ... | Begin partial refund and return of deliveries ...

Creation time 27.07.2015 17:29:27	**Transaction state** Missing tracking code	**State change time** 27.07.2015 17:29:42
Order number 8891227	**Payment code** LUHFLAZSD3WZRWCATFGT	**Reference number** 123 45678 90120
Original gross amount 573,10	**Original commission** xxx	**Original net amount** 487,13
Gross amount 573,10	**Commission** xxx	**Net sum** 487,13
Estimated dispatch delay 0	**Payer name** Teemu Testaaja	**Payment method** Cooperative Bank E-payment

Order rows

row	type	quantity	unit price net	vat-%	vat € total	discount	gross
	product number		item				
1	Product	2	100,00 €	23 %	46,00 €	0 %	246,00 €
	-		tuote 1				
2	Tailored product	1	300,00 €	23 %	62,10 €	10 %	332,10 €
	-		kustomoitu tuote 2				
3	Postal rate	1	5,00 €	0 %	0,00 €	0 %	5,00 €
	-		postituskulut				
4	Discount	1	-10,00 €	0 %	0,00 €	0 %	-10,00 €
	-		ALENNUS 1				
						total	573,10 €

Delivery information

Delivery method: Itella

All delivery information has been entered?
Yes No

Delivery tracking code:

Save

Delivery tracking code	Delivery state	
JJFI65432100000xxxxxx »	Created	Poista

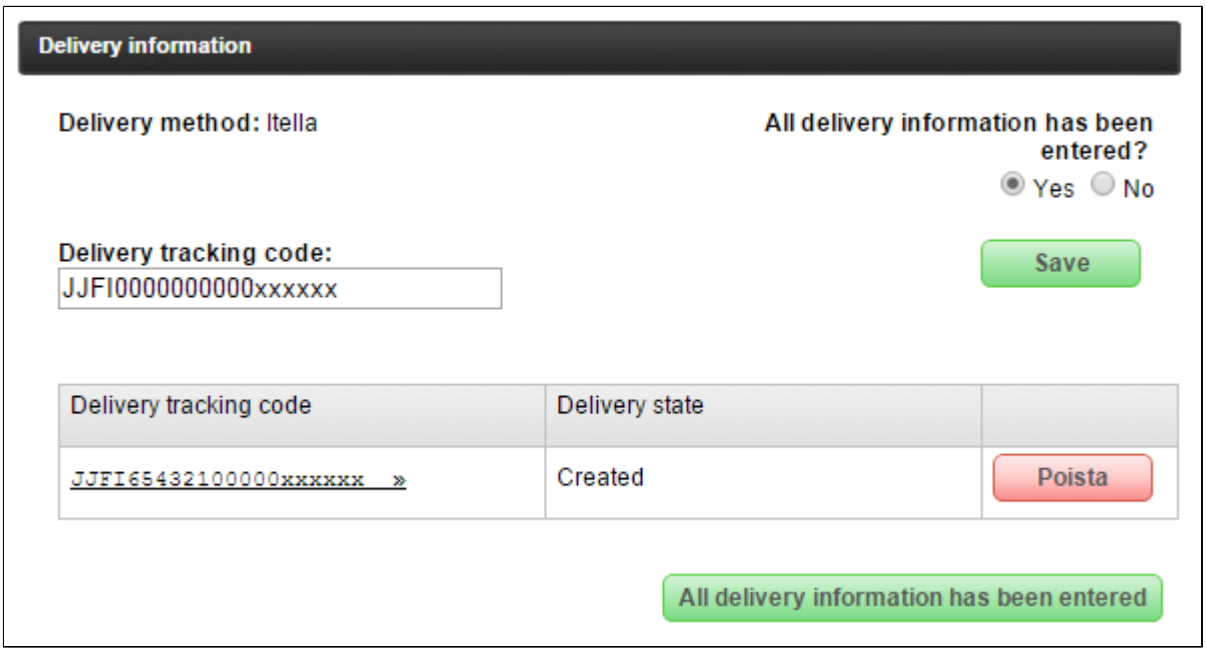
All delivery information has been entered

7.2.4.1 Adding shipping data

Registered shipment

If an order is shipped via registered shipment (packages, registered / insured letters, cargo), add the related shipment identification to the transaction. The shipment identification is an ID number or bill of lading number known by the shipping company and used for tracking the shipment.

To start adding shipment ID's, start by selecting the shipping company that delivers the shipment. After this, enter the shipment ID number you receive from the shipping company and press the Save button. If there is more than one shipping ID connected to the shipment of the transaction, do not select "Yes" in the selection item *"All delivery infomation has been entered?"* until giving the last shipment ID number.

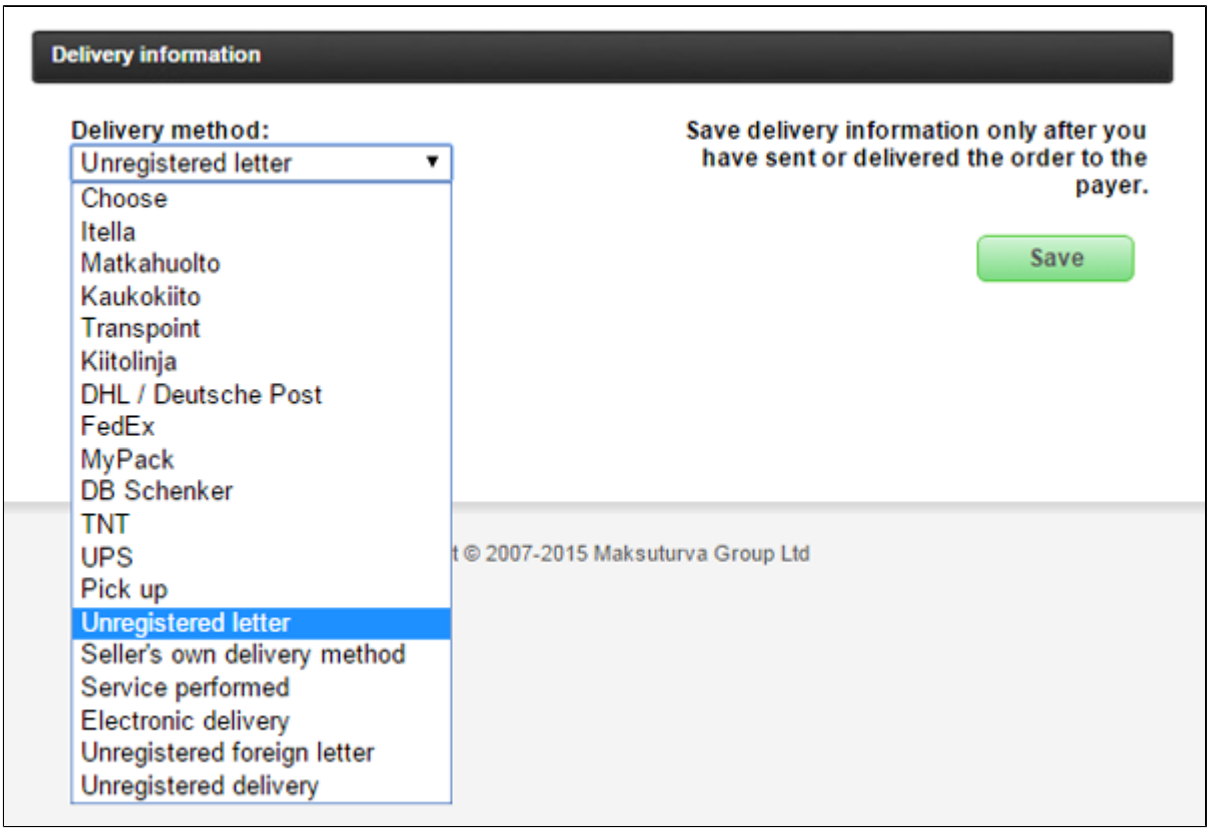


Only after this confirmation will Maksuturva begin to track a registered shipment or begin a delivery method-specific review period (letters, pickup, own delivery).
You can edit or remove shipping ID numbers or edit or remove them as long as the transaction is still in progress (it has not been settled or cancelled). Possible statuses of a delivery are:

- Created
- Being delivered
- Waiting for pick up or being delivered to door
- Delivered (buyer has received the delivery)

Unregistered letter, pickup or own delivery

If an order is shipped as an unregistered delivery (normal letter, maxi letter) do not give a confirmation of this to Maksuturva until you have placed all letters connected to the order in the shipment. If the order is picked up from a pickup station of the web store or delivered to the buyer by the web store's own transport, do not give this confirmation until the buyer has received his or her order.
Make a confirmation of the delivery method by selecting the delivery method (Unregistered letter, pickup or web store's own delivery) from the pull-down menu and pressing the save button.


Delivery information
Delivery method:
Unregistered letter
Choose
Itella
Matkahuolto
Kaukokiito
Transpoint
Kiitolinja
DHL / Deutsche Post
FedEx
MyPack
DB Schenker
TNT
UPS
Pick up
Unregistered letter
Seller's own delivery method
Service performed
Electronic delivery
Unregistered foreign letter
Unregistered delivery
Save delivery information only after you have sent or delivered the order to the payer.
Save
t © 2007-2015 Maksuturva Group Ltd

7.2.4.2 Making changes, web store initiates

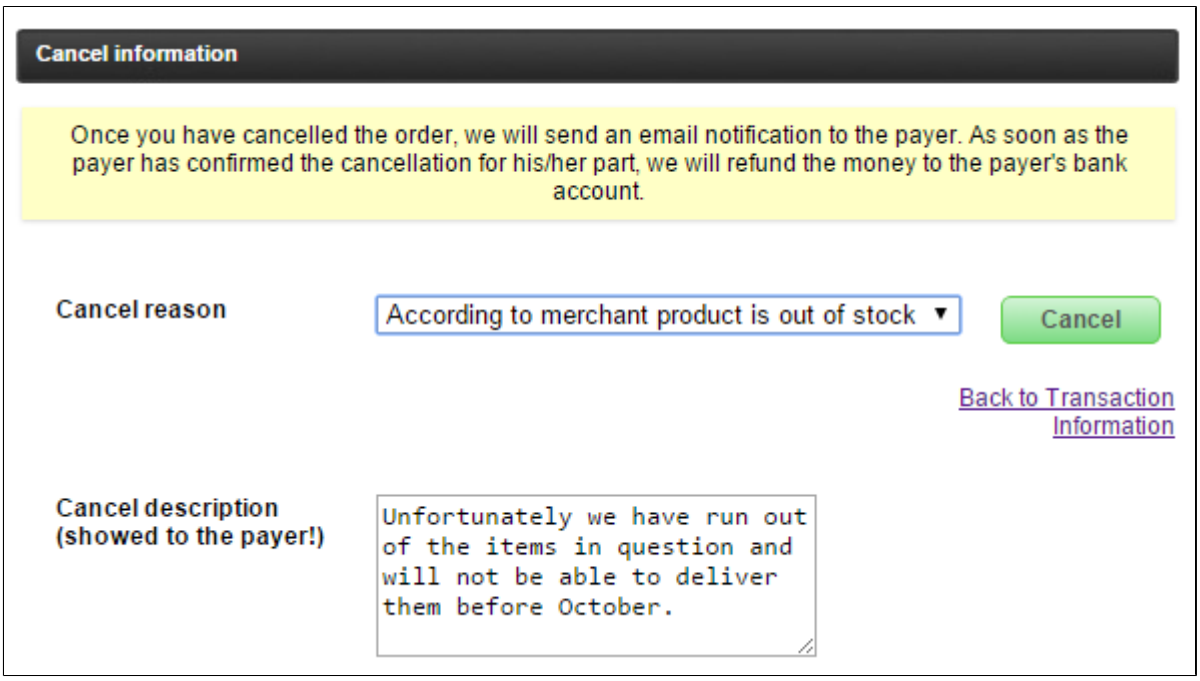
On the Transaction Information form you can begin the cancellation / return of a transaction entirely (“Cancellation”) or partly (“Partial refund and return of deliveries”) or give the buyer an extra discount (“Partial refund”).

When making a money refund for an order, always try to make the return first in KauppiasExtranet. Make the return directly to customer only when it is not possible through KauppiasExtranet.

Credit card payment rules allow money refunds only to the credit card used to make the purchase. Invoicing management of Invoicing and Part Payment requires that changes and returns made to orders be made in the services of Maksuturva’s KauppiasExtranet or Web Buyer’s Services or in accordance with instructions given in them.

After clicking on one of the buttons above, you will come to the form Cancel Information.

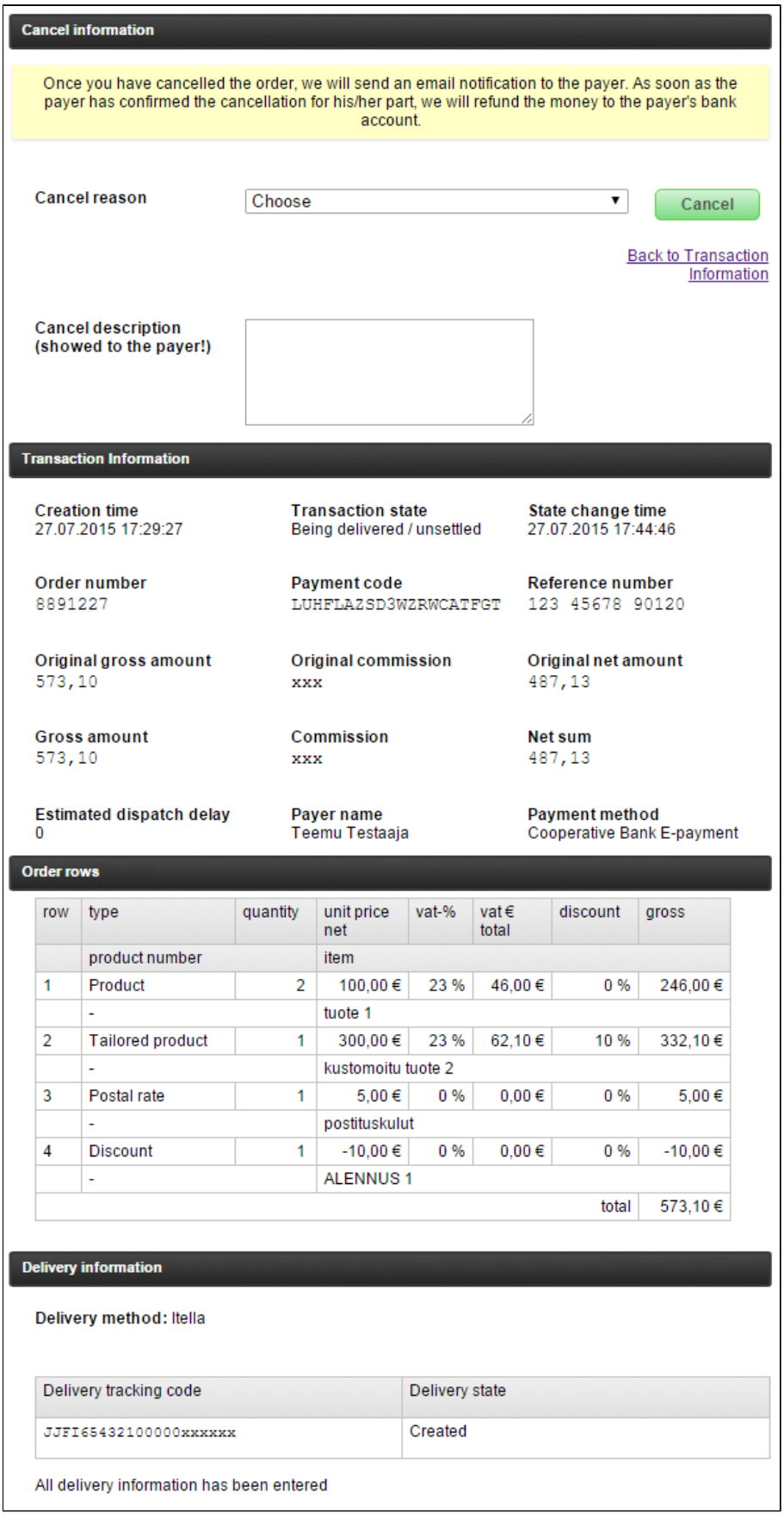
For every change event (a "cancellation”), a reason must be selected and a more detailed explanation given to the buyer.


Cancel information
Once you have cancelled the order, we will send an email notification to the payer. As soon as the payer has confirmed the cancellation for his/her part, we will refund the money to the payer's bank account.
Cancel reason
According to merchant product is out of stock
Cancel
Back to Transaction Information
Cancel description (showed to the payer!)
Unfortunately we have run out of the items in question and will not be able to deliver them before October.

7.2.4.2.1 Cancellation of entire order

Cancellation of an order means cancellation of all products. Select the reason, provide an explanation and click “Cancel" on the form.

An email explaining the changes made is automatically sent to the buyer. The sum paid by the customer is refunded at midnight in its entirety. If necessary the system asks the buyer for the bank account number to which the refund is deposited.



Cancel information

Once you have cancelled the order, we will send an email notification to the payer. As soon as the payer has confirmed the cancellation for his/her part, we will refund the money to the payer's bank account.

Cancel reason Choose ▼ Cancel

Back to Transaction Information

Cancel description (showed to the payer!)

Transaction Information

Creation time 27.07.2015 17:29:27	**Transaction state** Being delivered / unsettled	**State change time** 27.07.2015 17:44:46
Order number 8891227	**Payment code** LUHFLAZSD3WZRWCATFGT	**Reference number** 123 45678 90120
Original gross amount 573,10	**Original commission** xxx	**Original net amount** 487,13
Gross amount 573,10	**Commission** xxx	**Net sum** 487,13
Estimated dispatch delay 0	**Payer name** Teemu Testaaja	**Payment method** Cooperative Bank E-payment

Order rows

row	type	quantity	unit price net	vat-%	vat € total	discount	gross
	product number		item				
1	Product	2	100,00 €	23 %	46,00 €	0 %	246,00 €
	-		tuote 1				
2	Tailored product	1	300,00 €	23 %	62,10 €	10 %	332,10 €
	-		kustomoitu tuote 2				
3	Postal rate	1	5,00 €	0 %	0,00 €	0 %	5,00 €
	-		postituskulut				
4	Discount	1	-10,00 €	0 %	0,00 €	0 %	-10,00 €
	-		ALENNUS 1				
						total	573,10 €

Delivery information

Delivery method: Itella

Delivery tracking code	Delivery state
JJFI6543210000xxxxxx	Created

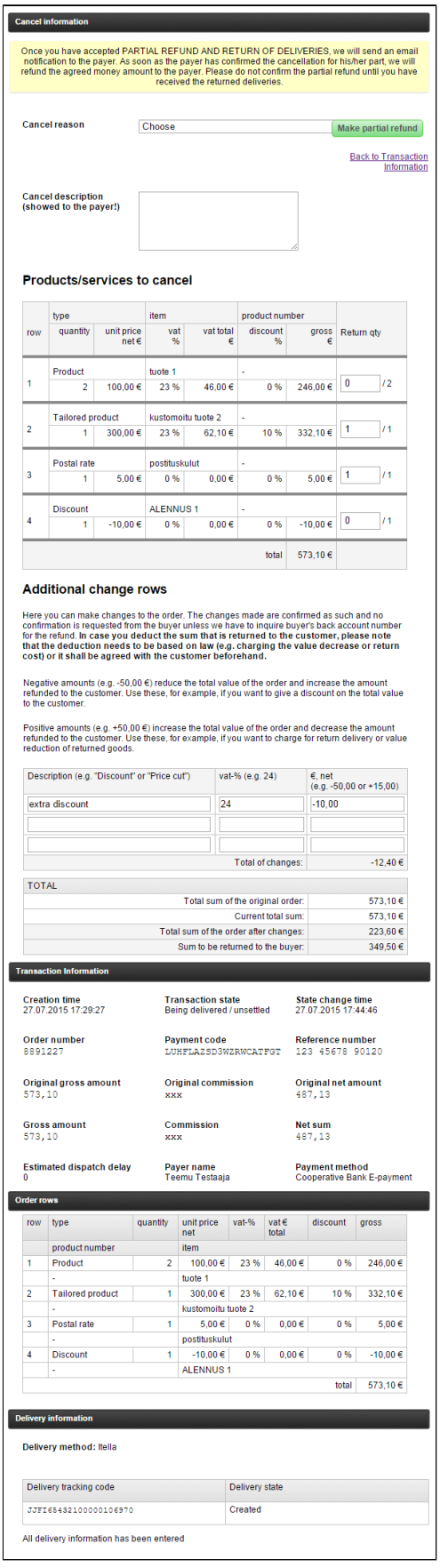
All delivery information has been entered

7.2.4.2.2 Return of products and additional changes

The web store can use the return form to select what products of an order are returned and if necessary, add change rows instead of price to increase or decrease the total sum to be refunded. Change rows can be used to give a customer an extra discount to compensate for trouble or disappointment experienced by a customer, but they also to adjust to final sum if, for instance, the original order contained discounts whose conditions are not satisfied.

Also if the buyer has already returned the products or the ordered products have been returned to the web store from the shipping company unclaimed, the web store can subtract the returning costs or reduction in value of used products from the sum to be refunded within the framework of the Consumer Protection Act.

Use the form to provide the reason and an explanation for the cancellation, and mark the number of items to be returned / cancelled for every product row, enter the needed additional changes and click on *"Make partial refund*". An email is automatically sent to the buyer explaining the changes made. The sum to be refunded is refunded to the buyer at midnight. If necessary the system asks the buyer for the bank account number to which the refund is deposited.



Cancel information

Once you have accepted PARTIAL REFUND AND RETURN OF DELIVERIES, we will send an email notification to the payer. As soon as the payer has confirmed the cancellation for his/her part, we will refund the agreed money amount to the payer. Please do not confirm the partial refund until you have received the returned deliveries.

Cancel reason: Choose — Make partial refund

Back to Transaction Information

Cancel description (showed to the payer!)

Products/services to cancel

row	type	quantity	unit price net €	item	vat %	vat total €	product number	discount %	gross €	Return qty
1	Product	2	100,00 €	tuote 1	23 %	46,00 €	-	0 %	246,00 €	0 / 2
2	Tailored product	1	300,00 €	kustomoitu tuote 2	23 %	62,10 €	-	10 %	332,10 €	1 / 1
3	Postal rate	1	5,00 €	postituskulut	0 %	0,00 €	-	0 %	5,00 €	1 / 1
4	Discount	1	-10,00 €	ALENNUS 1	0 %	0,00 €	-	0 %	-10,00 €	0 / 1
								total	573,10 €	

Additional change rows

Here you can make changes to the order. The changes made are confirmed as such and no confirmation is requested from the buyer unless we have to inquire buyer's back account number for the refund. **In case you deduct the sum that is returned to the customer, please note that the deduction needs to be based on law (e.g. charging the value decrease or return cost) or it shall be agreed with the customer beforehand.**

Negative amounts (e.g. -50,00 €) reduce the total value of the order and increase the amount refunded to the customer. Use these, for example, if you want to give a discount on the total value to the customer.

Positive amounts (e.g. +50,00 €) increase the total value of the order and decrease the amount refunded to the customer. Use these, for example, if you want to charge for return delivery or value reduction of returned goods.

Description (e.g. "Discount" or "Price cut")	vat-% (e.g. 24)	€, net (e.g. -50,00 or +15,00)
extra discount	24	-10,00
	Total of changes:	-12,40 €

TOTAL	
Total sum of the original order:	573,10 €
Current total sum:	573,10 €
Total sum of the order after changes:	223,60 €
Sum to be returned to the buyer:	349,50 €

Transaction Information

Creation time 27.07.2015 17:29:27	**Transaction state** Being delivered / unsettled	**State change time** 27.07.2015 17:44:46
Order number 8891227	**Payment code** LUHFLAZSD3WZRWCATFGT	**Reference number** 123 45678 90120
Original gross amount 573,10	**Original commission** xxx	**Original net amount** 487,13
Gross amount 573,10	**Commission** xxx	**Net sum** 487,13
Estimated dispatch delay 0	**Payer name** Teemu Testaaja	**Payment method** Cooperative Bank E-payment

Order rows

row	type	quantity	unit price net	vat-%	vat € total	discount	gross
	product number		item				
1	Product	2	100,00 €	23 %	46,00 €	0 %	246,00 €
	-		tuote 1				
2	Tailored product	1	300,00 €	23 %	62,10 €	10 %	332,10 €
	-		kustomoitu tuote 2				
3	Postal rate	1	5,00 €	0 %	0,00 €	0 %	5,00 €
	-		postituskulut				
4	Discount	1	-10,00 €	0 %	0,00 €	0 %	-10,00 €
	-		ALENNUS 1				
						total	573,10 €

Delivery information

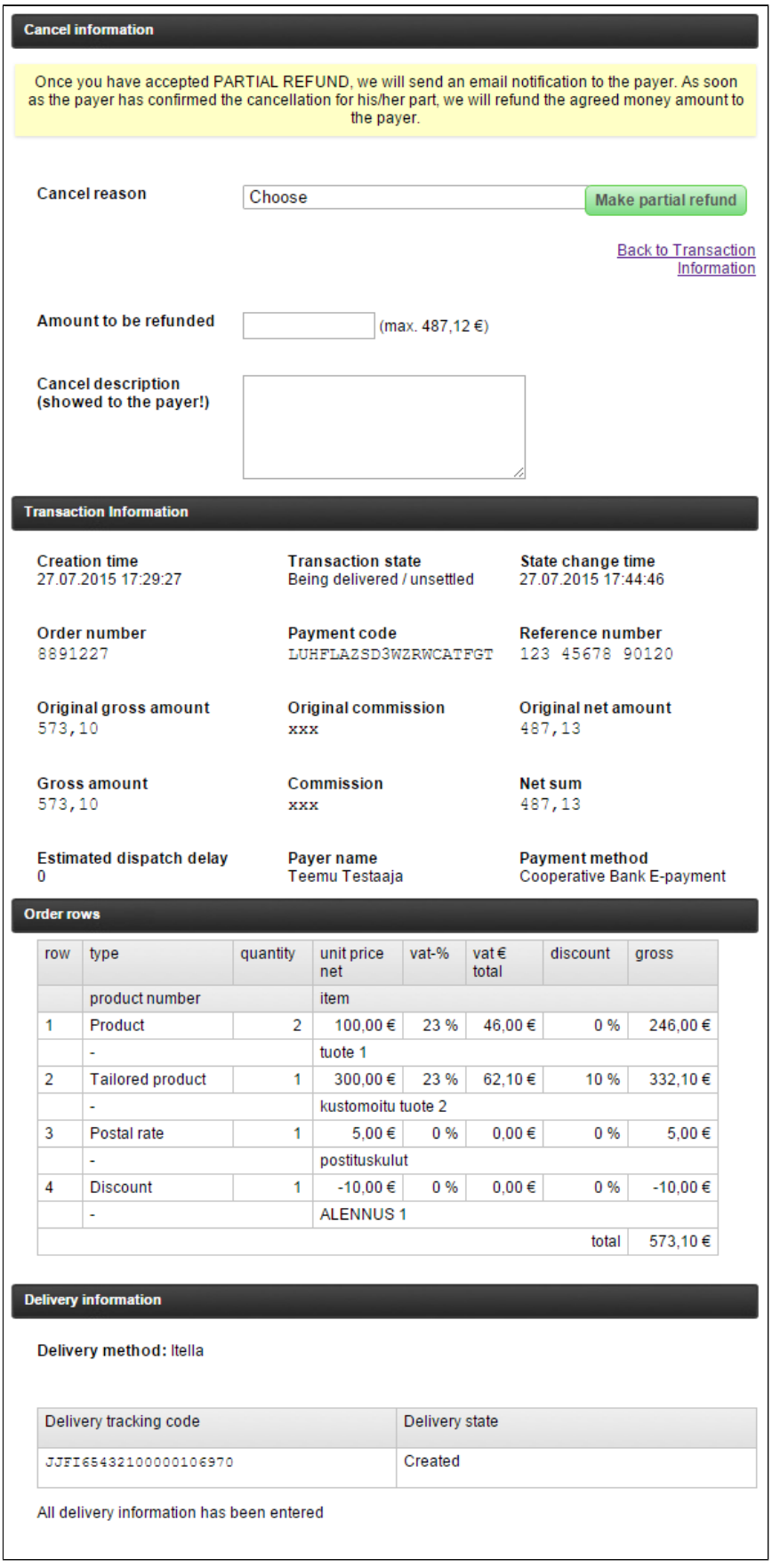
Delivery method: Itella

Delivery tracking code	Delivery state
JJFI6543210000106970	Created

All delivery information has been entered

7.2.4.2.3 Refund

It is possible to decrease the final sum of an order without product returns by using partial refund. An equivalent change can also be made using the return form by adding change rows to the order. Use the form to select a reason for the cancellation, give the monetary amount to be refunded, and an explanation for the cancellation, and click on *"Make partial refund*". An email is automatically sent to the buyer explaining the changes made. The sum to be refunded is refunded to the buyer at midnight. If necessary the system asks the buyer for the bank account number to which the refund is deposited.



Cancel information

Once you have accepted PARTIAL REFUND, we will send an email notification to the payer. As soon as the payer has confirmed the cancellation for his/her part, we will refund the agreed money amount to the payer.

Cancel reason Choose — Make partial refund

Back to Transaction Information

Amount to be refunded (max. 487,12 €)

Cancel description (showed to the payer!)

Transaction Information

Creation time 27.07.2015 17:29:27	**Transaction state** Being delivered / unsettled	**State change time** 27.07.2015 17:44:46
Order number 8891227	**Payment code** LUHFLAZSD3WZRWCATFGT	**Reference number** 123 45678 90120
Original gross amount 573,10	**Original commission** xxx	**Original net amount** 487,13
Gross amount 573,10	**Commission** xxx	**Net sum** 487,13
Estimated dispatch delay 0	**Payer name** Teemu Testaaja	**Payment method** Cooperative Bank E-payment

Order rows

row	type	quantity	unit price net	vat-%	vat € total	discount	gross
	product number		item				
1	Product	2	100,00 €	23 %	46,00 €	0 %	246,00 €
	-		tuote 1				
2	Tailored product	1	300,00 €	23 %	62,10 €	10 %	332,10 €
	-		kustomoitu tuote 2				
3	Postal rate	1	5,00 €	0 %	0,00 €	0 %	5,00 €
	-		postituskulut				
4	Discount	1	-10,00 €	0 %	0,00 €	0 %	-10,00 €
	-		ALENNUS 1				
						total	573,10 €

Delivery information

Delivery method: Itella

Delivery tracking code	Delivery state
JJFI65432100000106970	Created

All delivery information has been entered

7.2.4.3 Making changes, buyer initiates

After receiving a delivery, the buyer can use the Web Buyer's Services (read more: 1.3 Satisfaction Guarantee (Web Buyer's Services) to notify that he or she will return the entire order or a part of it, but can also cancel the order or part of it in a similar manner even before he or she has even received the order. Similarly the buyer can, in problem situations, suggest a reduction in the final sum of the order or just make a reclamation if he or she feels there has been something objectionable in the delivery. In this kind of situation, the settlement of the the sum of the order in question to the web store shall be suspended.

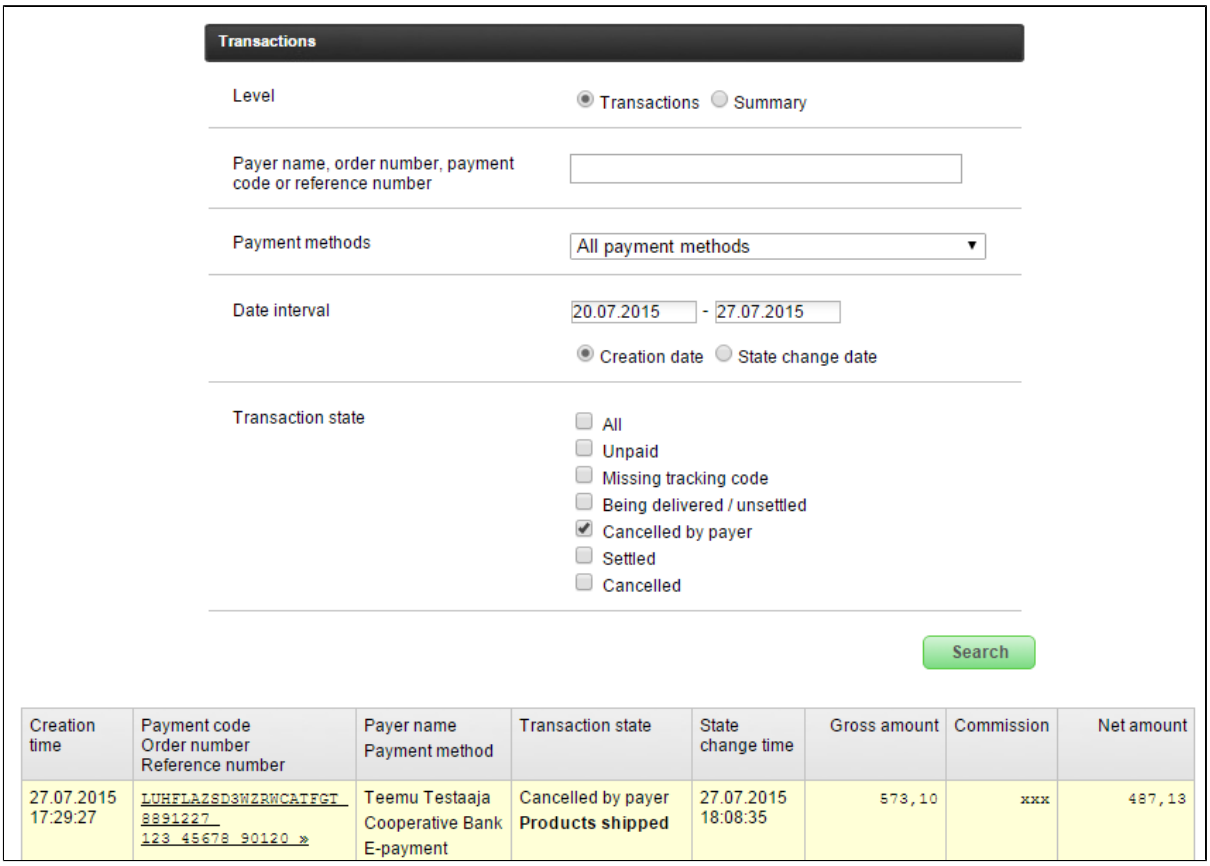
Payments of an order are settled to the web store after the web store has confirmed the product returns of a buyer and the sums to be returned to the buyer; or, in the case of a reclamation, agreed with the buyer that he or she will withdraw his or her reclamation and release the payments of the order for settlement. As a solution for a justified reclamation, the seller can also suggest product returns or price reductions to the buyer. In this case the suggestion for changes shall be made immediately after withdrawal of the reclamation – no later than during the same day.

After a buyer has made a notification of canceling / returning an order, a suggestion for correcting the price or made a reclamation, Maksuturva shall send a confirmation of the matter by email to the web store and buyer. The easiest way to access cancellations and reclamations of buyers is through the In progress – summary table of the Transactions page.

In progress

Transaction state	Count	Gross sum	Commission	Net sum
Missing tracking code »	23	xxx	xxx	xxx
Cancelled by payer »	15	xxx	xxx	xxx
Unpaid	0	xxx	xxx	xxx
Being delivered / unsettled »	186	xxx	xxx	xxx

Click on the Cancelled by payerlink, which lists all of the orders with pending cancellations, returns, suggested price reductions or reclamations initiated by the buyer. After the changes made by the buyer have been processed and payments settled to the parties, they are removed from the list of orders in progress.



If a web store has already notified the delivery service (in KauppiasExtranet or using the interface of the delivery information management) of an order, the issue is highlighted in the Transaction status column. You can review and process the data of an individual transaction and the data of changes presented therein from the list by clicking on the ID number / order number / reference number of the transaction in question.

Payer's cancel information

Handle partial refund and return of deliveries ...

Cancel type	**Partial refund and return of deliveries**
Payer's cancel reason	Item does not correspond to order
Payer's cancel description	*"The product did suit for my needs"*
Payer's proposal of the amount to be refunded	123,00 €

Proposed products/services to cancel

row	type	quantity	unit price net	vat-%	vat € total	discount	gross
	product number		item				
5	Refund/change	1	-100,00 €	23 %	-23,00 €	0 %	-123,00 €
	-		tuote 1				
						total	-123,00 €

The buyer has notified using one or more of returned products

Transaction Information

Creation time 27.07.2015 17:29:27	**Transaction state** Cancelled by payer	**State change time** 27.07.2015 18:08:35
Order number 8891227	**Payment code** LUHFLAZSD3WZRWCATFGT	**Reference number** 123 45678 90120
Original gross amount 573,10	**Original commission** xxx	**Original net amount** 487,13
Gross amount 573,10	**Commission** xxx	**Net sum** 487,13
Estimated dispatch delay 0	**Payer name** Teemu Testaaja	**Payment method** Cooperative Bank E-payment

Order rows

row	type	quantity	unit price net	vat-%	vat € total	discount	gross
	product number		item				
1	Product	2	100,00 €	23 %	46,00 €	0 %	246,00 €
	-		tuote 1				
2	Tailored product	1	300,00 €	23 %	62,10 €	10 %	332,10 €
	-		kustomoitu tuote 2				
3	Postal rate	1	5,00 €	0 %	0,00 €	0 %	5,00 €
	-		postituskulut				
4	Discount	1	-10,00 €	0 %	0,00 €	0 %	-10,00 €
	-		ALENNUS 1				
						total	573,10 €

Delivery information

Delivery method: Itella

Delivery tracking code	Delivery state
JJFI6543210000106970 »	Created

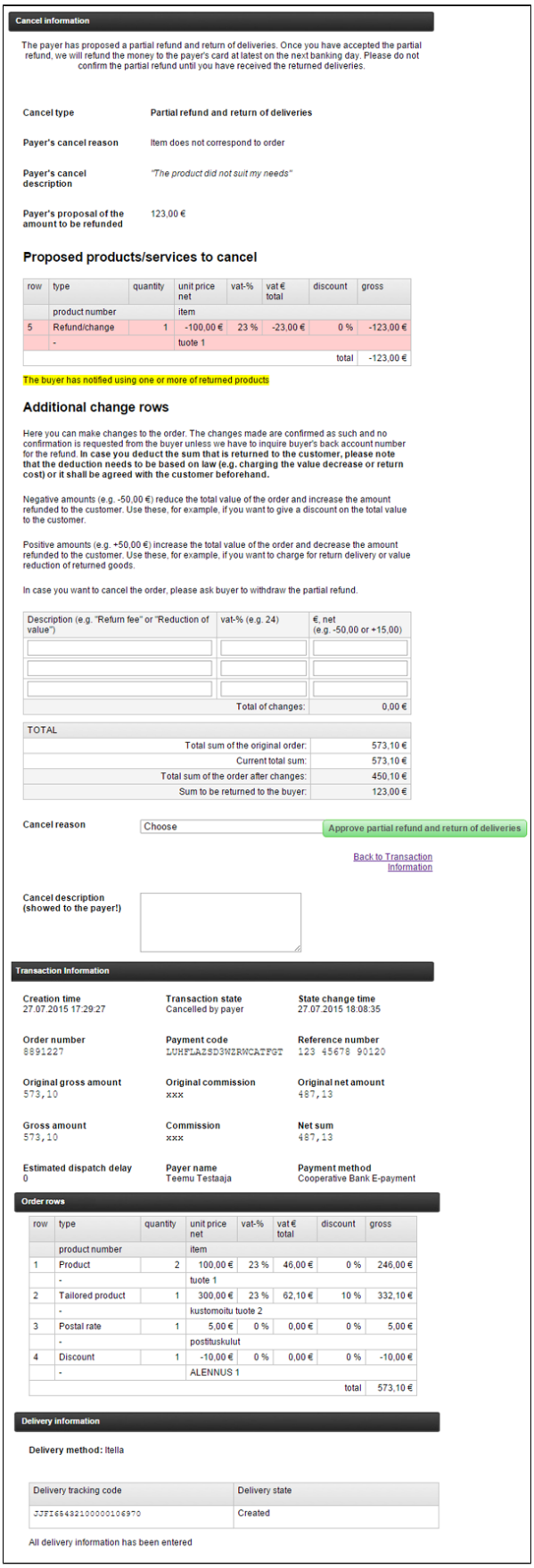
All delivery information has been entered

Make changes to delivery information

In Web Buyer's services the buyer has been able to write the date on which he or she sent the product(s) that he or she is returning back to the web store, if desired, and also notify if he or she has used the products, and this information is shown on the upper edge of the transaction data. The web store can utilise the buyer's notification regarding usage of the product when deciding whether the usage has reduced the value of the product. Both notifications are optional for the buyer.

NOTE! Do not process a cancellation until you have got back any product returns related to the transaction.

You can process the data of a cancellation, refund and partial return initiated by a buyer by clicking "handle partial refund and return of deliveries".



Cancel information

The payer has proposed a partial refund and return of deliveries. Once you have accepted the partial refund, we will refund the money to the payer's card at latest on the next banking day. Please do not confirm the partial refund until you have received the returned deliveries.

Cancel type — **Partial refund and return of deliveries**

Payer's cancel reason — Item does not correspond to order

Payer's cancel description — *"The product did not suit my needs"*

Payer's proposal of the amount to be refunded — 123,00 €

Proposed products/services to cancel

row	type	quantity	unit price net	vat-%	vat € total	discount	gross
	product number		item				
5	Refund/change	1	-100,00 €	23 %	-23,00 €	0 %	-123,00 €
	-		tuote 1				
						total	-123,00 €

The buyer has notified using one or more of returned products

Additional change rows

Here you can make changes to the order. The changes made are confirmed as such and no confirmation is requested from the buyer unless we have to inquire buyer's back account number for the refund. **In case you deduct the sum that is returned to the customer, please note that the deduction needs to be based on law (e.g. charging the value decrease or return cost) or it shall be agreed with the customer beforehand.**

Negative amounts (e.g. -50,00 €) reduce the total value of the order and increase the amount refunded to the customer. Use these, for example, if you want to give a discount on the total value to the customer.

Positive amounts (e.g. +50,00 €) increase the total value of the order and decrease the amount refunded to the customer. Use these, for example, if you want to charge for return delivery or value reduction of returned goods.

In case you want to cancel the order, please ask buyer to withdraw the partial refund.

Description (e.g. "Refurn fee" or "Reduction of value")	vat-% (e.g. 24)	€, net (e.g. -50,00 or +15,00)
	Total of changes:	0,00 €

TOTAL	
Total sum of the original order:	573,10 €
Current total sum:	573,10 €
Total sum of the order after changes:	450,10 €
Sum to be returned to the buyer:	123,00 €

Cancel reason — Choose — Approve partial refund and return of deliveries

Back to Transaction Information

Cancel description (showed to the payer!)

Transaction Information

Creation time 27.07.2015 17:29:27
Transaction state Cancelled by payer
State change time 27.07.2015 18:08:35

Order number 8891227
Payment code LUHFLAZSD3WZRWCATFGT
Reference number 123 45678 90120

Original gross amount 573,10
Original commission xxx
Original net amount 487,13

Gross amount 573,10
Commission xxx
Net sum 487,13

Estimated dispatch delay 0
Payer name Teemu Testaaja
Payment method Cooperative Bank E-payment

Order rows

row	type	quantity	unit price net	vat-%	vat € total	discount	gross
	product number		item				
1	Product	2	100,00 €	23 %	46,00 €	0 %	246,00 €
	-		tuote 1				
2	Tailored product	1	300,00 €	23 %	62,10 €	10 %	332,10 €
	-		kustomoitu tuote 2				
3	Postal rate	1	5,00 €	0 %	0,00 €	0 %	5,00 €
	-		postituskulut				
4	Discount	1	-10,00 €	0 %	0,00 €	0 %	-10,00 €
	-		ALENNUS 1				
						total	573,10 €

Delivery information

Delivery method: Itella

Delivery tracking code	Delivery state
JJFI6843210000106970	Created

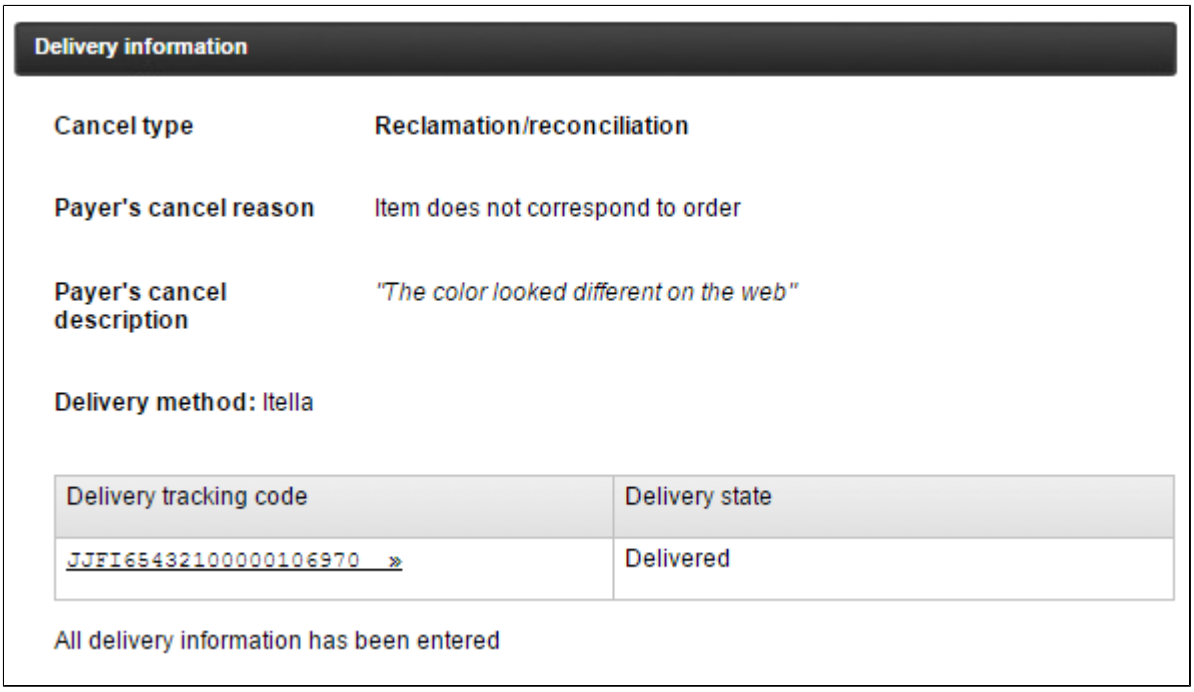
All delivery information has been entered

When processing a buyer's proposal for a change, you see the data of the order and the changes proposed for it. If necessary, you can use change rows to give a customer additional discounts or charge for the reduction in value caused by usage of products or returning costs. Add the reason for cancellation and an informal explanation. Accept the cancellation suggestion made by the buyer by pressing the *"Approve partial refund and return of deliveries"* button, after which Maksuturva informs the buyer of the action by email and refunds the payment to the buyer.

NOTE! Do not process a cancellation until you have got back any product returns related to the transaction.

7.2.4.4 Review of reclamation made by buyer

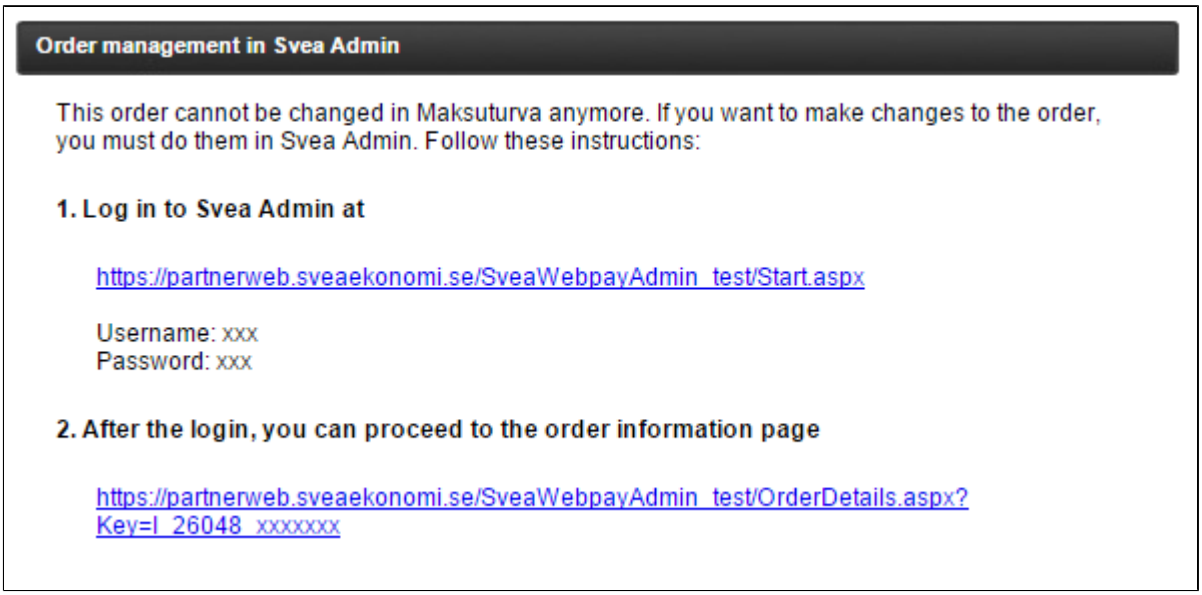
A reclamation made by a buyer is also shown in KauppiasExtranet in the status of cancelled by buyer. No actions can be taken for reclamations through KauppiasExtranet, and you can only review the content of a reclamation. A reclamation can be removed only by a buyer after the reason related to the reclamation has been clarified. NOTE! While a reclamation is underway, Maksuturva will not settle a payment forward.



7.2.4.5 Making changes, SveaWebPay and B2B Invoice

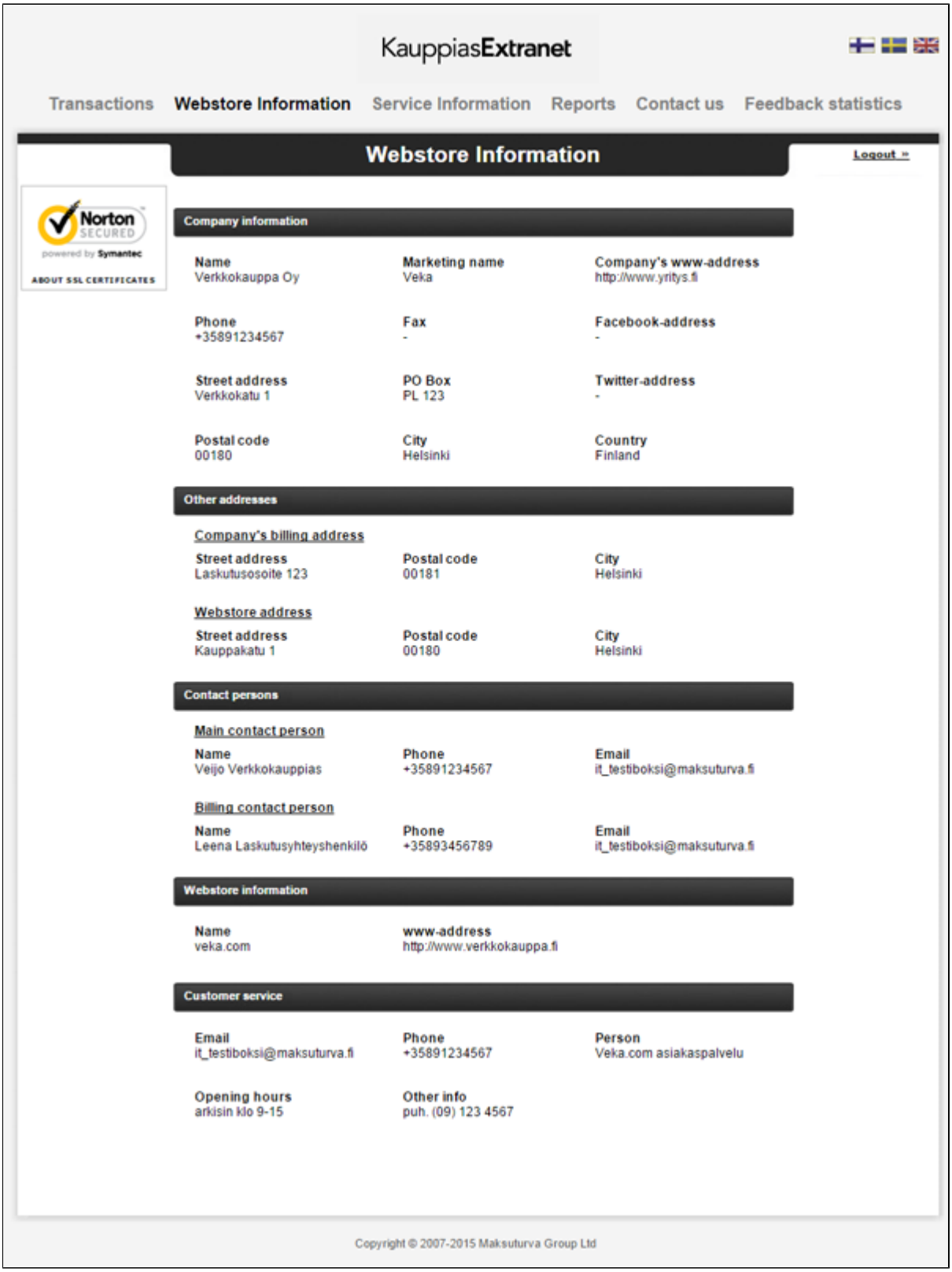
If a web store is using SveaWebPay Invoice or Part Payment or Maksuturva B2B Invoice, cancellations shall always be made through the KauppiasExtranet service. Maksuturva automatically has the cancellation and credit processing handled by Svea if the payment has not yet been settled.

If the payment has already been settled, instructions and codes for managing the transaction in the Svea Admin service are located at the end of the Transaction Information page.


Order management in Svea Admin
This order cannot be changed in Maksuturva anymore. If you want to make changes to the order, you must do them in Svea Admin. Follow these instructions:
1. Log in to Svea Admin at
https://partnerweb.sveaekonomi.se/SveaWebpayAdmin_test/Start.aspx
Username: xxx
Password: xxx
2. After the login, you can proceed to the order information page
https://partnerweb.sveaekonomi.se/SveaWebpayAdmin_test/OrderDetails.aspx?Key=I_26048_xxxxxxx

7.3 Webstore Information

Information about your company and web store are located in Webstore Information. You can request an update of your data by contacting through the KauppiasExtranet contact form.

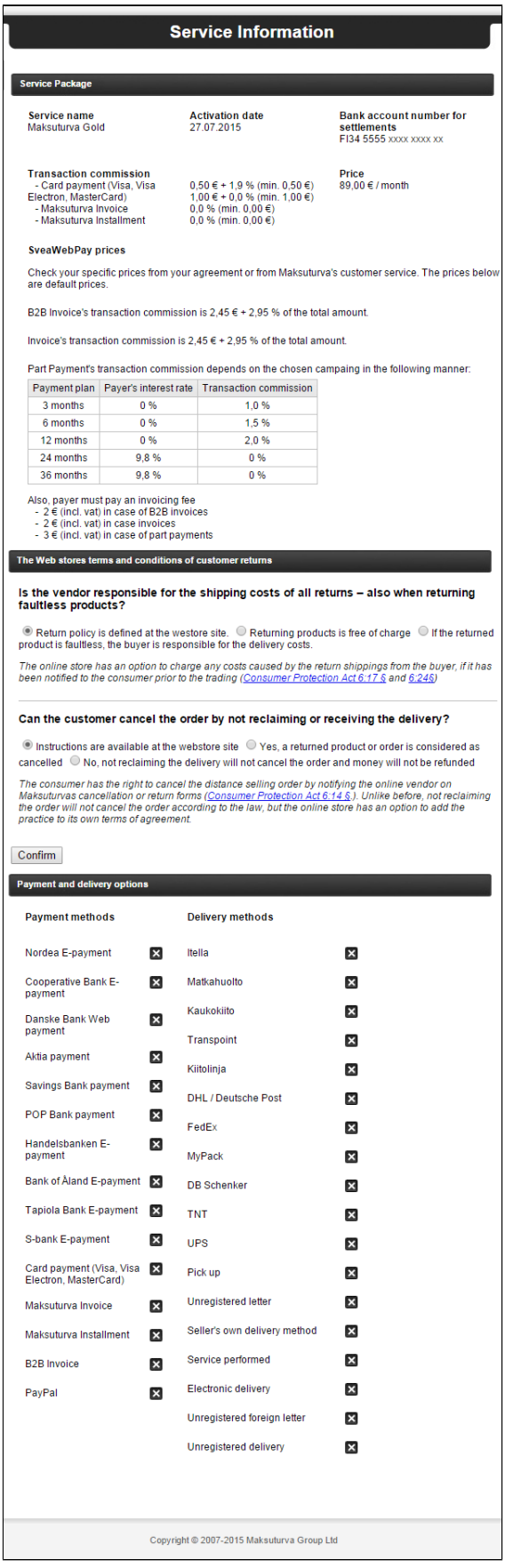


7.4 Service Information

Information about your Maksuturva service is found in Service Information. You can request an update of your data by contacting through the KauppiasExtranet contact form.

When you start using the service you are provided web store-specific IDs for technical interfaces from the Service Information page (web store ID *pmt_sellerid*, web store secret key , version number of the secret key *pmt_keygeneration*). After the first payment transaction the IDs are no longer shown.

It is possible to declare a web store's terms and conditions for customer returns in KauppiasExtranet. Maksuturva uses the data given when it instructs a buyer in connection with customer returns. Additionally the information is available from the web store's certificate page, where a customer can easily review a web store's key terms and conditions of payment and delivery.



Service Information

Service Package

Service name	Activation date	Bank account number for settlements
Maksuturva Gold	27.07.2015	FI34 5555 xxxx xxxx xx

Transaction commission		Price
- Card payment (Visa, Visa Electron, MasterCard)	0,50 € + 1,9 % (min. 0,50 €) 1,00 € + 0,0 % (min. 1,00 €)	89,00 € / month
- Maksuturva Invoice	0,0 % (min. 0,00 €)	
- Maksuturva Installment	0,0 % (min. 0,00 €)	

SveaWebPay prices

Check your specific prices from your agreement or from Maksuturva's customer service. The prices below are default prices.

B2B Invoice's transaction commission is 2,45 € + 2,95 % of the total amount.

Invoice's transaction commission is 2,45 € + 2,95 % of the total amount.

Part Payment's transaction commission depends on the chosen campaing in the following manner:

Payment plan	Payer's interest rate	Transaction commission
3 months	0 %	1,0 %
6 months	0 %	1,5 %
12 months	0 %	2,0 %
24 months	9,8 %	0 %
36 months	9,8 %	0 %

Also, payer must pay an invoicing fee
- 2 € (incl. vat) in case of B2B invoices
- 2 € (incl. vat) in case invoices
- 3 € (incl. vat) in case of part payments

The Web stores terms and conditions of customer returns

Is the vendor responsible for the shipping costs of all returns – also when returning faultless products?

◉ Return policy is defined at the westore site. ○ Returning products is free of charge ○ If the returned product is faultless, the buyer is responsible for the delivery costs.

The online store has an option to charge any costs caused by the return shippings from the buyer, if it has been notified to the consumer prior to the trading (Consumer Protection Act 6:17 § and 6:24§)

Can the customer cancel the order by not reclaiming or receiving the delivery?

◉ Instructions are available at the webstore site ○ Yes, a returned product or order is considered as cancelled ○ No, not reclaiming the delivery will not cancel the order and money will not be refunded

The consumer has the right to cancel the distance selling order by notifying the online vendor on Maksuturvas cancellation or return forms (Consumer Protection Act 6:14 §). Unlike before, not reclaiming the order will not cancel the order according to the law, but the online store has an option to add the practice to its own terms of agreement.

Confirm

Payment and delivery options

Payment methods		Delivery methods	
Nordea E-payment	☒	Itella	☒
Cooperative Bank E-payment	☒	Matkahuolto	☒
Danske Bank Web payment	☒	Kaukokiito	☒
Aktia payment	☒	Transpoint	☒
Savings Bank payment	☒	Kiitolinja	☒
POP Bank payment	☒	DHL / Deutsche Post	☒
Handelsbanken E-payment	☒	FedEx	☒
Bank of Åland E-payment	☒	MyPack	☒
Tapiola Bank E-payment	☒	DB Schenker	☒
S-bank E-payment	☒	TNT	☒
Card payment (Visa, Visa Electron, MasterCard)	☒	UPS	☒
Maksuturva Invoice	☒	Pick up	☒
Maksuturva Installment	☒	Unregistered letter	☒
B2B Invoice	☒	Seller's own delivery method	☒
PayPal	☒	Service performed	☒
		Electronic delivery	☒
		Unregistered foreign letter	☒
		Unregistered delivery	☒

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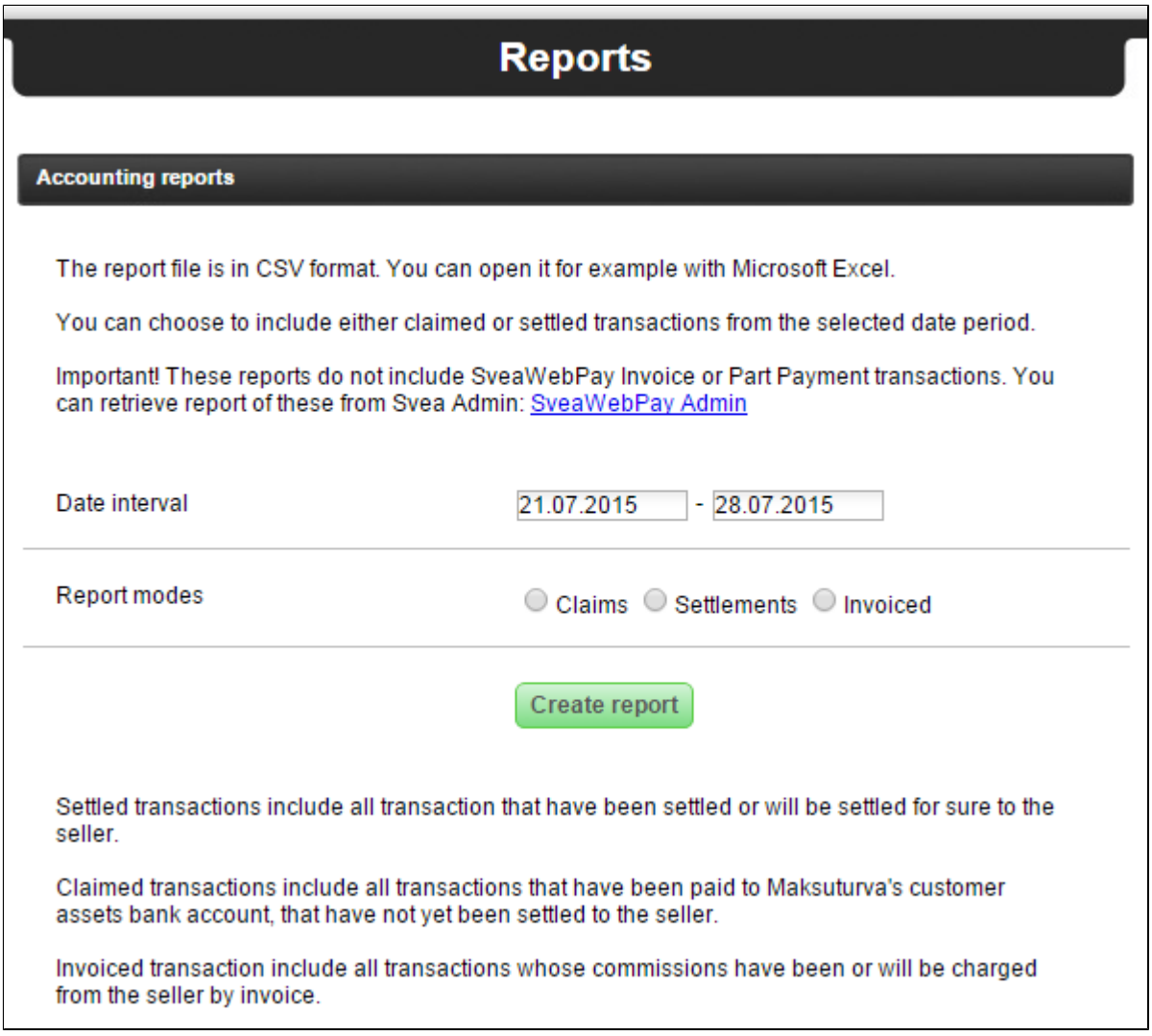
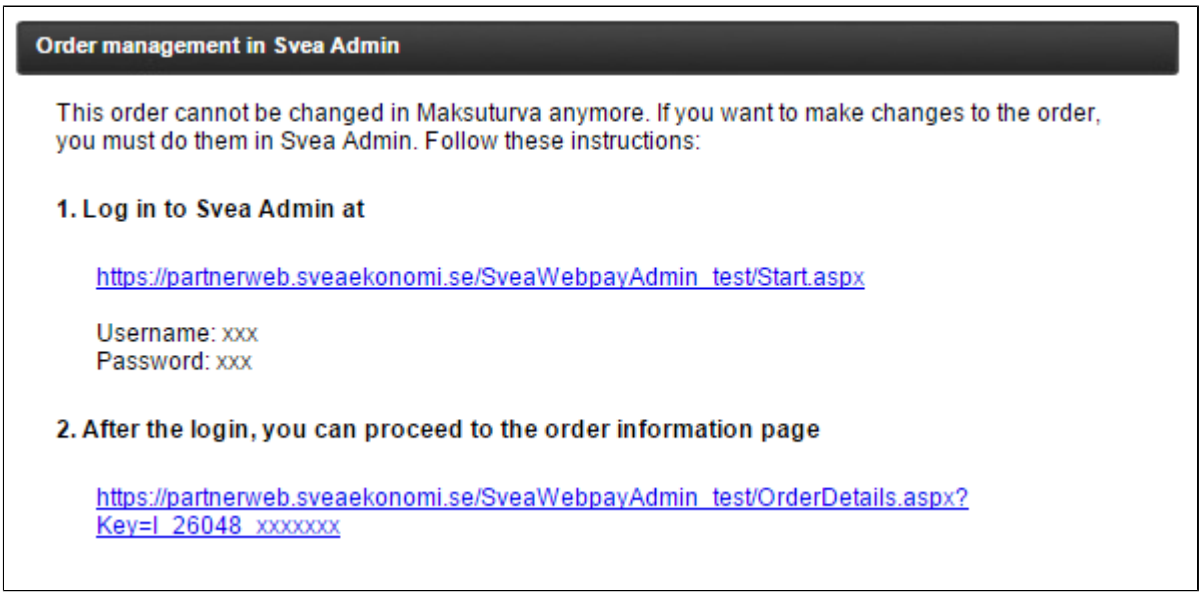
7.5 Reports

You can print out reports (in CSV format) from the Reports page for accounting purposes. Reports can be attached to credited or receivable transactions over the selected period of time.
Accounting reports related to invoicing and part payment transactions that come through SveaWebPay must be retrieved from the Svea Admin service.

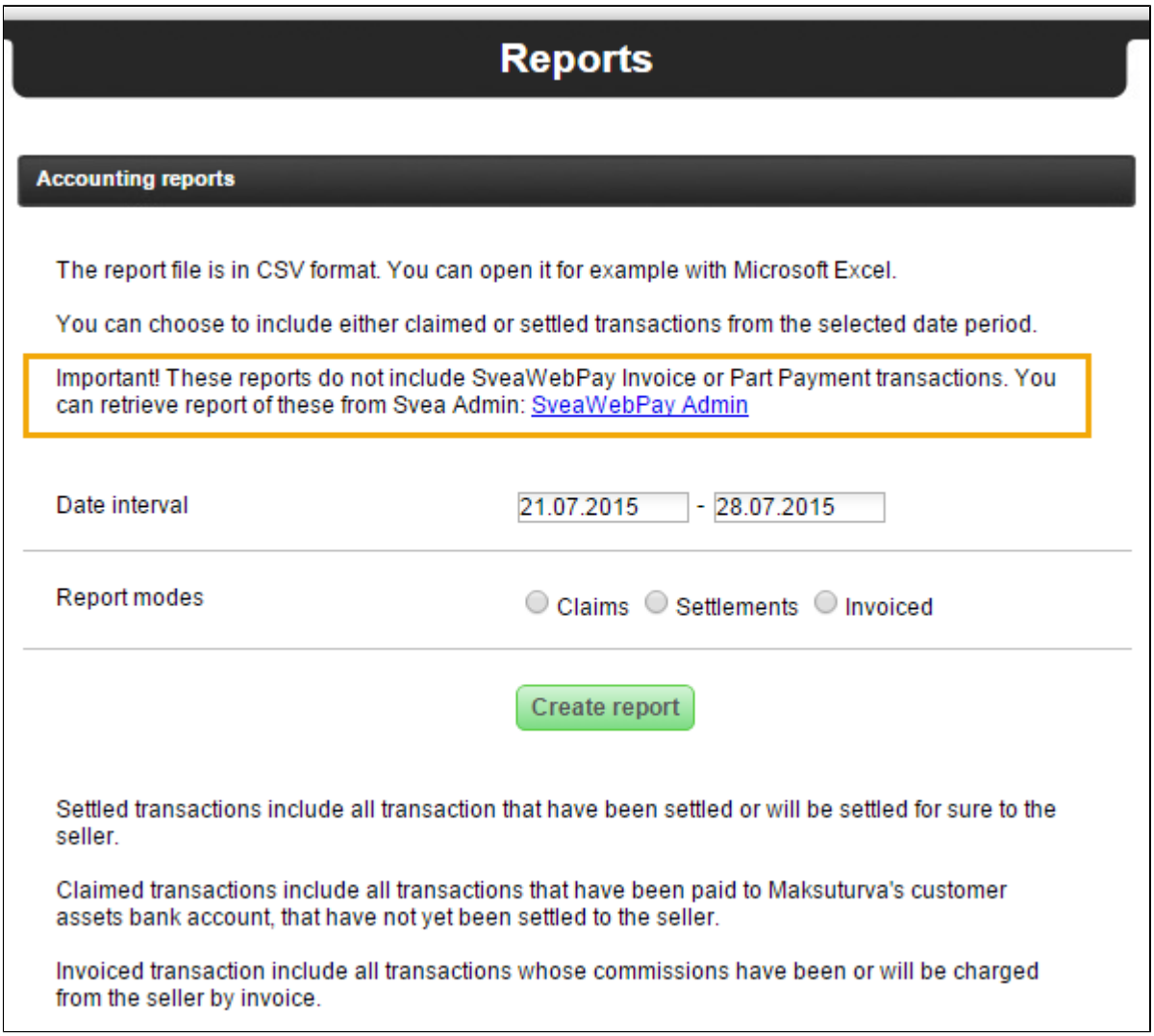

Reports
Accounting reports
The report file is in CSV format. You can open it for example with Microsoft Excel.
You can choose to include either claimed or settled transactions from the selected date period.
Important! These reports do not include SveaWebPay Invoice or Part Payment transactions. You can retrieve report of these from Svea Admin: SveaWebPay Admin
Date interval
21.07.2015 - 28.07.2015
Report modes
Claims Settlements Invoiced
Create report
Settled transactions include all transaction that have been settled or will be settled for sure to the seller.
Claimed transactions include all transactions that have been paid to Maksuturva's customer assets bank account, that have not yet been settled to the seller.
Invoiced transaction include all transactions whose commissions have been or will be charged from the seller by invoice.

7.5.1 SveaWebPay settlement reports

For payments of SveaWebPay Invoice, SveaWebPay Part Payment and Maksuturva B2B Invoice, an individual settlement may contain a sum of money for more than one order, from which fees charged by Svea and any other expenses have been deducted. For the purpose of matching settlements, reports related to settlements shall be retrieved from the SveaWebPay Admin administration application.
You have received a user name and password from Svea. Every payment method is settled as its own aggregate settlement. A B2B invoice might be settled as one or several aggregate settlements or together with a SveaWebPay Invoice depending on the agreement between the web store and SveaWebPay.


Order management in Svea Admin
This order cannot be changed in Maksuturva anymore. If you want to make changes to the order, you must do them in Svea Admin. Follow these instructions:
1. Log in to Svea Admin at
https://partnerweb.sveaekonomi.se/SveaWebpayAdmin_test/Start.aspx
Username: xxx
Password: xxx
2. After the login, you can proceed to the order information page
https://partnerweb.sveaekonomi.se/SveaWebpayAdmin_test/OrderDetails.aspx?Key=I_26048_xxxxxxx

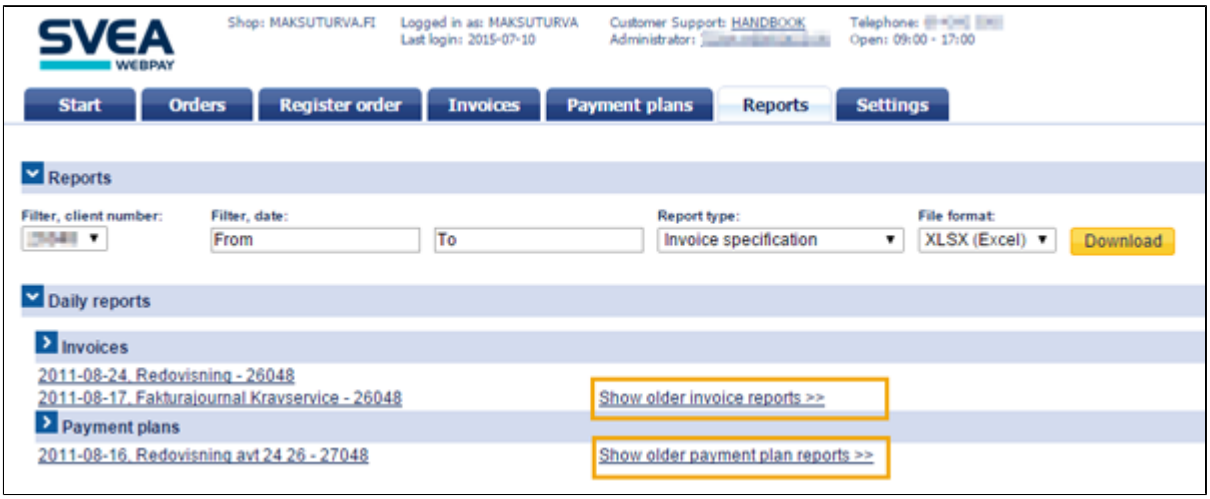
You can also go to the SveaWebPay Admin application directly at https://partnerweb.sveaekonomi.se/WebPayAdmin/Start.aspx
Alternatively you can also go to SveaWebPay Admin through Maksuturva's KauppiasExtranet. After payment has been settled to the web store, instructions for managing the transaction in the Svea Admin service are found at the end of the Transaction data page.


Reports
Accounting reports
The report file is in CSV format. You can open it for example with Microsoft Excel.
You can choose to include either claimed or settled transactions from the selected date period.
Important! These reports do not include SveaWebPay Invoice or Part Payment transactions. You can retrieve report of these from Svea Admin: SveaWebPay Admin
Date interval
21.07.2015 - 28.07.2015
Report modes
Claims Settlements Invoiced
Create report
Settled transactions include all transaction that have been settled or will be settled for sure to the seller.
Claimed transactions include all transactions that have been paid to Maksuturva's customer assets bank account, that have not yet been settled to the seller.
Invoiced transaction include all transactions whose commissions have been or will be charged from the seller by invoice.

There is also a link to the SveaWebPay Admin from KauppiasExtranet's reports page:

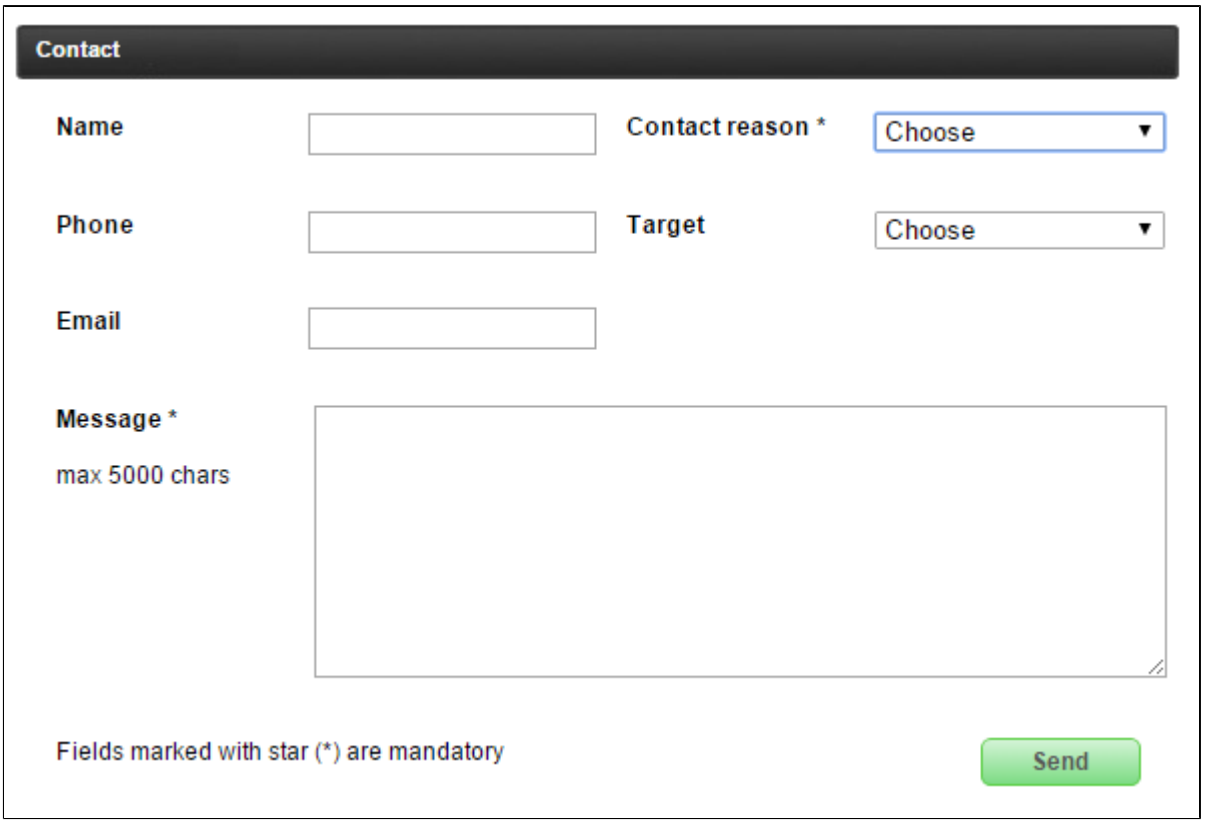
After logging in to the SveaWebPay Admin service select Reports. As a default on the page, Admin shows links to the newest accounting reports. Search for older reports by clicking on links that show older reports under the headings of payment method.

Note that the date of settlement reports is always slightly behind the settlement dates. Select a month and click on the date link of the settlement and you will receive an itemization of settlements in PDF form.


SVEA WEBPAY
Shop: MAKSUTURVA.FI
Logged in as: MAKSUTURVA
Last login: 2015-07-10
Customer Support: HANDBOOK
Administrator:
Telephone:
Open: 09:00 - 17:00
Start
Orders
Register order
Invoices
Payment plans
Reports
Settings
Reports
Filter, client number:
Filter, date:
From
To
Report type:
Invoice specification
File format:
XLSX (Excel)
Download
Daily reports
Invoices
2011-08-24, Redovisning - 26048
2011-08-17, Fakturajournal Kravservice - 26048
Show older invoice reports >>
Payment plans
2011-08-16, Redovisning avt 24 26 - 27048
Show older payment plan reports >>

7.6 Contact

Contact can be made through the Contact us form. We process contacts as quickly as possible.



7.7 Risk management of card payments

The risks in distance sales are different from those in physical trade or commerce. Reliable verification of the buyer is a challenge to the merchant because the debit or credit card and buyer are not physically present. A product or service that can be easily exchanged for money, is valuable and can be quickly resold also attracts criminals.

Verification services Verified by Visa and MasterCard SecureCode

All web stores who accept card payments through the services of Maksuturva are automatically connected to the verification services of Verified by Visa and MasterCard SecureCode. The verification services are strong authentication services that have been developed by international card companies Visa and MasterCard and improve security. Both parties to the payment are verified at the moment of purchase: the web store and buyer (if the card used by the buyer is connected to the verification services).

In a verified transaction the debit or credit card is identified in connection with a payment made in the web store with separate passwords by the issuer of the debit or credit card. The usage of verification services reduces the merchant's risks because a card holder registered for the service can be identified reliably. Merchant instructions and terms of Nets (previously Luottokunta) valid at the time shall be applied to the verification services. Nets does not charge the transaction back from the merchant if the card holder has been identified in the transaction using the verification services or by demonstrably attempting authentication.

Track card transaction

To prevent abuse, the merchant should also critically monitor the quality and quantity of transactions at his or her places of business, as well as the information of card holders related to the transactions. Abnormal data can include abruptly increased sales volumes, sales to a market area in which the merchant did not previously have sales, or unclear and insufficient data of the buyer. If a merchant suspects the misuse of debit or credit cards or card numbers at his or her place of business, Nets / Maksuturva must be notified immediately.

Maksuturva's risk management tools

The risk management tools provided by Maksuturva enable the reliable and efficient prevention of abuse in distance sales, and help the merchant identify possible cases of abuse even before sending the product or service. The risk management tools are available to all merchants who use Maksuturva's credit or debit card payments without additional fees. A merchant can use the data from risk management tools to compare the country code of the issuer of the debit or credit card to the country code of the IP address of the buyer's browser connection and the country of delivery of the product or service given by the buyer.

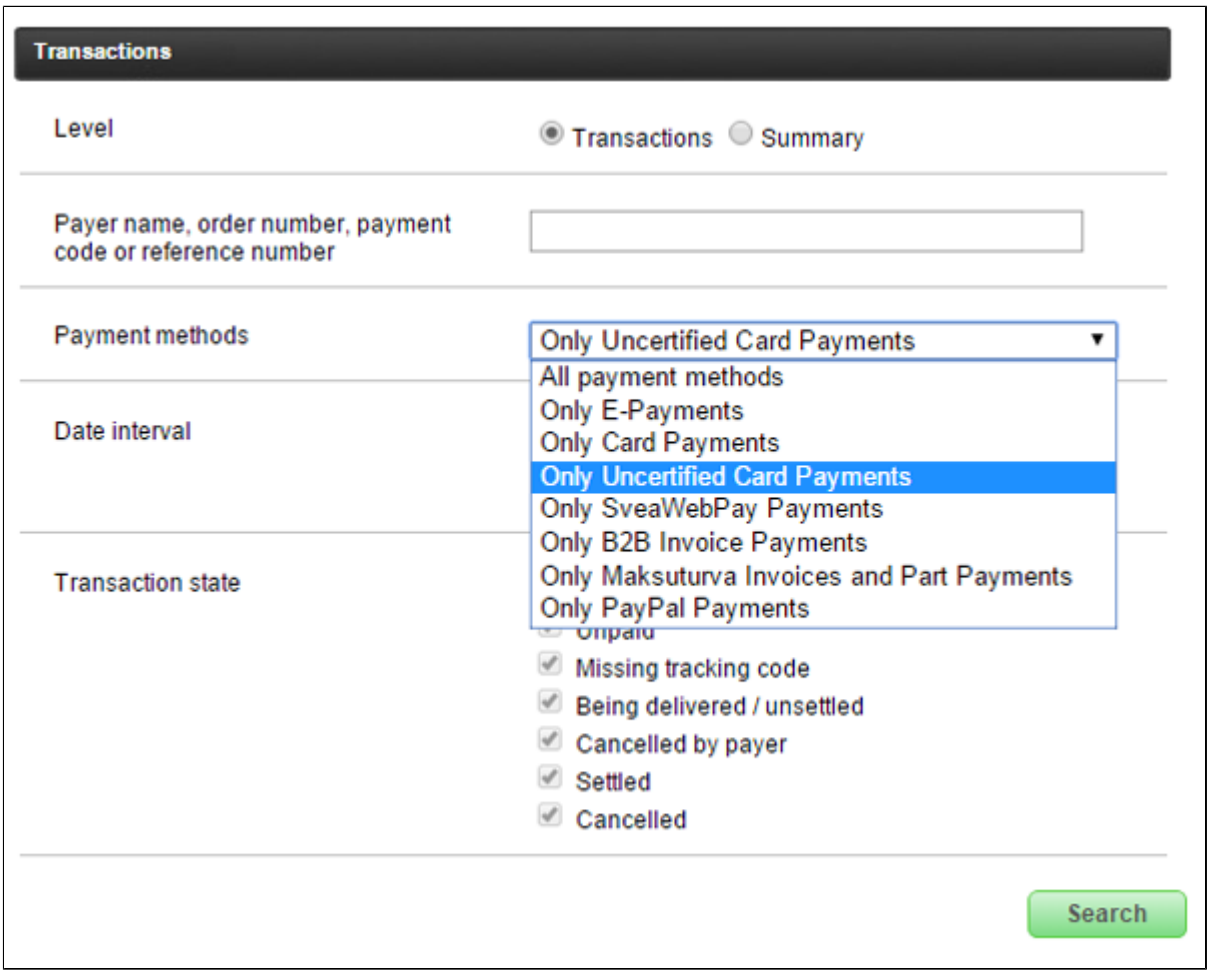
Card issuer country	Card payer IP country	Verification
RU	RU	Payment succesfully verified by MasterCard SecureCode
FI	FI	Payment not verified
GB	FI	Payment not verified

If the country code, country code of the IP address of the buyer's browser connection and the country of delivery of the product or service differ from each other and/or the transaction is not verified, it is a good idea to review the order in greater detail before delivery and consider possibly contacting the buyer. The merchant can reject a transaction if he has justified reason for suspecting misuse. However, it should be noted that there may be a natural explanation for having different country code and delivery country information, for example the buyer may be on assignment abroad, on student exchange, or be using a debit or credit card issued by a multinational bank.

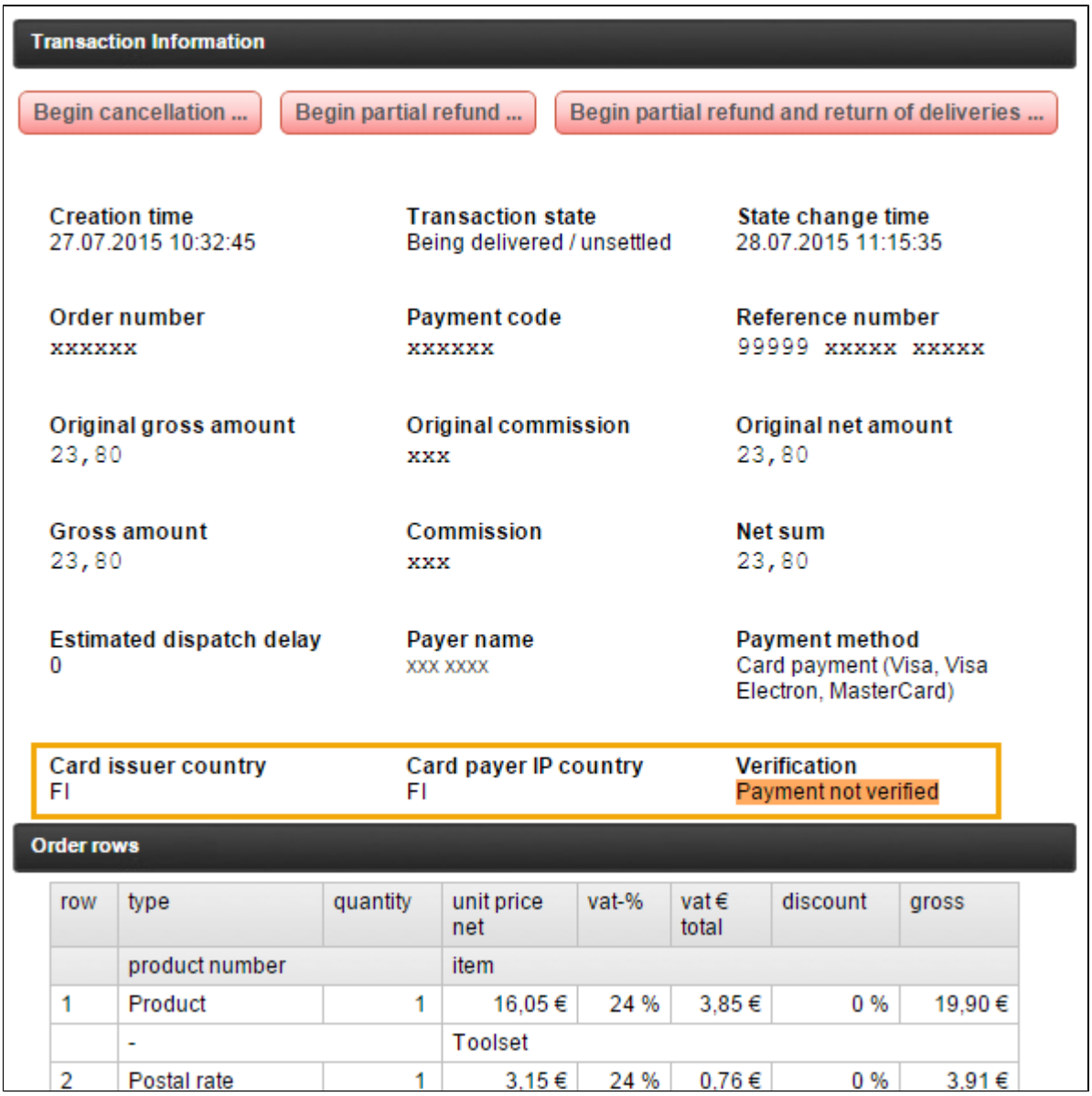
The traffic lights of Maksuturva in risk management tools are green, orange and red. The green color verifies a card transaction in which no risk alerts have occurred. The orange color code portrays an unverified card transaction in which no other risk signals occurred (for instance all business card payments go to this category as unverified transactions). The red color code indicates an unverified card transactions in which the country code of the card issuer and the country code of the IP address of the buyer's browser connection differ from each other.

How to check unverified card transactions

Select "Only unverified card payments" from the Payment methods list on the Transactions page, and enter the interval from the period you want to review.



Select the transaction you want from the list of transaction by clicking on the payment ID / order number / reference number of the transaction in question and you are directed to the Transaction Information screen. The data of the risk management tools (Country of the issuer of the card, Country of the buyer's IP address and Verification) are shown on the last row of the Transaction Information section.



Transaction Information

Begin cancellation ... | Begin partial refund ... | Begin partial refund and return of deliveries ...

Creation time 27.07.2015 10:32:45	**Transaction state** Being delivered / unsettled	**State change time** 28.07.2015 11:15:35
Order number xxxxxx	**Payment code** xxxxxx	**Reference number** 99999 xxxxx xxxxx
Original gross amount 23,80	**Original commission** xxx	**Original net amount** 23,80
Gross amount 23,80	**Commission** xxx	**Net sum** 23,80
Estimated dispatch delay 0	**Payer name** xxx xxxx	**Payment method** Card payment (Visa, Visa Electron, MasterCard)
Card issuer country FI	**Card payer IP country** FI	**Verification** Payment not verified

Order rows

row	type	quantity	unit price net	vat-%	vat € total	discount	gross
	product number		item				
1	Product	1	16,05 €	24 %	3,85 €	0 %	19,90 €
	-		Toolset				
2	Postal rate	1	3,15 €	24 %	0,76 €	0 %	3,91 €